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CityHarvest

The feasibility of growing more food in London

A NATIONAL FOOD ALLIANCE PUBLICATION

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The feasibility of growing more food in London

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What this report does

This report forms part of the ***CityHarvest*** project, an initiative managed by **Sustain: The alliance for better food and farming.** Since 1997 CityHarvest has worked to promote, develop and research the potential for food growing activities in London as a means of contributing to its social, economic and environmental regeneration.

The project builds upon our past work in urban agriculture, namely the publication of the ***Growing food in cities*** report. This highlighted the potential benefits of urban agriculture in the UK and summarised the activities of thirty-eight food growing projects. ***CityHarvest*** has attempted to go one step further. Whereas the emphasis of ***Growing food in cities*** was very much on the potential benefits of urban agriculture, this report focuses on what the ***actual*** benefits have been, and on the feasibility of developing food growing activities further, given London's specific social, economic and environmental context. In other words, it has sought to test the claims we made in our earlier report.

This report begins with a general introduction to London's social, economic and natural environment and a brief analysis of its food system. This is followed by an overview of existing food growing activities in London, which includes commercial farming, allotment gardening and community based projects.

The next sections assess the current contribution that food growing activities make to London's environmental, economic, health, community and educational development and to a sustainable land use strategy. Fifteen detailed case studies of food growing projects and a number of other project summaries show how food growing projects work in practice, and illustrate the points made in the main text. A few of these are from outside London and even from overseas. We have included them because they could be useful models to follow and because nothing comparable (to our knowledge) exists in London. It is important to emphasise that these case studies are not ***necessarily*** 'best practice' (although they might be) – it was not the purpose of this project to carry out systematic evaluation work. Nevertheless, they can be seen as examples of ***interesting*** practice, and as such, may provide useful ideas for others.

The report also contains a map, showing the spread and location of food growing activity in the capital, and a diagram showing how the various schemes, policies and existing projects could all work together to further food growing activities in any London borough. Based on this assessment the report presents a conclusion and a series of recommendations aimed at national and local policy makers. Finally, a glossary, a list of contacts in five London Boroughs, a list of useful organisations and sources of information are included at the back.

We have also included a summary of the successes (and failures) we experienced in the course of producing this report. We hope this will help people avoid the mistakes which we occasionally made.

A summary of the benefits of growing food in cities:

London could become a pioneer of urban agriculture for the UK, and even for Europe. The breadth and depth of expertise in the capital is impressive and, with a supportive policy framework, could significantly improve the quality of urban living. Advantages include:

Environmental

- greater biological diversity of plants and animals
- less waste, resulting from more composting activity and less food packaging
- reduced food transportation through greater availability of local produce
- less pollution and lower pollution related costs from the greater environmental awareness generated by urban agriculture

Economic

- some commercially viable jobs in food growing, processing and marketing, and in composting and related industries
- a boost to the leisure industry, through increased sales of gardening inputs
- a stronger sustainable food and agriculture industry (urban and rural) through London's role as a centre for research excellence in area-intensive agriculture
- business benefits through greener, more attractive local environments, a better public image and more skilled and motivated workers
- contributions to the alternative economy through LETS and social enterprises

Health

- health and social benefits, so reducing the burden on statutory services
- increased consumption of fruit and vegetables through greater availability of affordable fresh produce
- opportunities for physical activity
- stress relief for everyone and mental health gains for those with specific difficulties

Community development

- more active participation in community life and a practical focus for working with others across a variety of social divisions
- opportunities for delivering many of Government's area based regeneration objectives

Educational

- opportunities for school curriculum teaching, vocational training and for life-long learning
- educational, training and employment opportunities, particularly for disadvantaged people

1) London: an introduction

Success is relative: It is what we can make of the mess we have made of things

TS Eliot, ***Family Reunion***

Summary

London is a large, complex and constantly changing city which is difficult to describe, let alone define. It contains extremes of wealth and health and, as well having areas of great beauty, suffers from environmental problems and contributes to environmental problems in the rest of the country and, indeed, the world. London's food system reflects these contradictory features, being at the centre of cultural renaissance in food yet at the same time experiencing food poverty. This manifests itself in a number of ways, including poor health, an underdeveloped food economy and, not least, a paucity of opportunities to grow food which would meet Londoners' varied needs.

Key facts

- Greater London covers around 157,800 hectares, and around 60% of it is green space
- As many as 12 million people live or work in London, and 10 million visit every year
- Londoners eat 2,400,000 tonnes of food each year and produce 883,000 tonnes of organic waste

Elusive definitions

Urban agriculture

Urban agriculture in this report encompasses the production of all manner of foodstuffs - including fruit and vegetable growing, livestock rearing and beekeeping - and at all levels, from commercial horticulture to community projects to small scale hobby gardening. Urban forestry for fuel and timber is also a form of urban agriculture but this report focuses on edible products and, in particular, on those that have been produced sustainably. It is acknowledged that sustainable agriculture is notoriously difficult to define and this report does not attempt to solve that problem. Instead a range of production methods have been included that appear to "tread lightly on the earth".

London

'The first problem with London is to define it. London has never taken kindly to attempts at delimitation, whether by people who wanted to govern it, or by those who just wanted to fix it statistically; every time this was done, London promptly outgrew its administration or its figures.'

London 2001, Peter Hall, Unwin Hyman, London, 1989

London is 2000 years old. Greater London covers around 157,800 hectares[1] and is home to seven million people - 12% of Britain's population of 59 million.[2] It is one of the most highly populated parts of the European Union, with average densities of 4,480 people per square km, although in Kensington and Chelsea it is as high as 13,300 people per square kilometre.[3] After decades of decline, London's population is growing again and is now over 5% greater than its low of 1983.[4]

What London is depends on who defines it, and why. The Greater London administrative area, for instance, is bounded by the Metropolitan Green Belt and comprises the 33 London boroughs (including the Corporation of London).[5] But the GLC boundary does not include the whole of the built-up, populated area. Such a morphological definition would include large parts of Essex, Hertfordshire, Kent and Surrey, creating a city 130% bigger than the Greater London area and home to 15% more people.[6]

Then there is the labour market definition. More than 10% of the working population from Berkshire, Buckinghamshire, Essex, Hampshire, Hertfordshire, Kent, Surrey and West Sussex[7] regularly commute into inner London for work, meaning that London's economic footprint extends over 10,390km2 and 11 million people. Even this is inadequate as London also draws in significant numbers of workers from as far away as Portsmouth, Canterbury and Milton Keynes. Although separate cities in their own right they nevertheless exist in some form of symbiotic relationship with London. This, arguably, is true of the whole of South East England.[8] Defining London as the area bounded by the M25 is another approach, as are postcode or telephone number definitions.

In short, then, 'the functional urban region, joined together by complex ties of commuting and other kinds of dependence, is a vast area of over 12 million people, stretching from Basingstoke to Chelmsford, from Bishop's Stortford to Horsham. Contiguous to it, but not so strongly linked, is a whole series of other areas stretching out to the South East boundary and beyond…This is the contemporary reality of life in the South East; and…it is becoming more interdependent and thus more complex, every day.'[9]

The approach of this report reflects the somewhat slippery nature of the city. Most of the discussion focuses on the experiences of food growers in Greater London but the report by no means intends to exclude sustainable

food growing activities further afield. On the contrary, its aim is to maximise the local as far as is feasible- and total inner-city self sufficiency is certainly not feasible. Our vision is, instead, the development of a series of outwardly expanding food circles, with foods most suited to intensive small scale urban production, such as fruit and vegetables, forming the innermost ring. Sustainable agricultural enterprises on the Greenbelt and beyond would form the next 'circle,' supplying London's citizens with larger quantities of bulkier foods such as grains and potatoes, while the outer circles still would supply fairly-traded overseas produce, such as rice, coffee and bananas. The ultimate goal is, in Euro-jargon, subsidiarity for subsistence - the greening of London's extensive and somewhat grubby, food "footprint" ***(see "London's food system" below).***

London's characteristics

London is a vibrant, exciting city - each year 10 million people[10] visit for business and for entertainment. However, while the UK may technically be a first world country, inequality levels are among the highest in the world[11] and in London this is particularly striking. At $122 billion, London's economy is similar to that of Saudi Arabia, and the average household income is 16% higher than anywhere else in the country.[12] But the unemployment rate, at 8.1% is 2% higher than the national average,[13] and five of the country's ten most deprived boroughs are in London - Hackney, Islington, Southwark, Newham and Tower Hamlets.[14]

Around 24% of London's population is of ethnic minority origin,[15] who live predominantly in inner London. Many of them suffer disproportionately from unemployment and deprivation. Ethnic minority groups account for 27% of the labour force but 47% of the unemployed in inner London.[16] In Tower Hamlets for instance, around 36% of people are from ethnic minority communities, with Bangladeshis making up 25% of the population.[17] Some 47% of Bangladeshis are out of work.[18] Low educational achievement is another feature of inner London life; here, a higher proportion of young people leave school without any qualifications than the national average[19] although wealthier outer London boroughs do rather better in this respect.

Health

Inequality and deprivation do not just work against people's educational prospects. The reality is that poverty kills.[20] Although London's health as a whole mirrors the national picture, variation within the capital reflects socio-economic variations. While wealthier boroughs such as Bromley and Barnet are 'healthier' than the national average,[21] Tower Hamlets has mortality rates 10-20% greater than for the UK as a whole.[22] East London and the City, one of the most deprived and most ethnically mixed health

authority areas in the country, has higher morbidity rates than almost anywhere else, and within this area, death rates from almost every cause increase with levels of deprivation.[23] It is only recently that Government has acknowledged poverty and a poor environment to be important contributory factors to preventable illness not only in their own right, but as underlying causes of other determinants, such as poor nutrition, low levels of physical activity and mental health problems.[24]

Mental illness is another major health concern. London's suicide rate stands at 12.7 per 100,000 population, slightly higher than the national average of 9.9 per 100,000,[25] reflecting London's high proportion of at-risk communities.[26] One study observed more than twice the prevalence of common symptoms among the unemployed.'[27] Certain ethnic groups and homeless people are also more likely to suffer from many acute psychiatric conditions - African Caribbean people are 3-5 times more likely to be admitted for schizophrenia, and are over-represented in secure institutions.[28] Research among selected GP practices in Tower Hamlets found the incidence of very severe mental illness to be between 10.4 and 16 per 1,000 people compared with 7.7 per 1000 nationally.[29] Taken together, these factors mean that the strain on emergency mental health services can be four times higher in Inner London than in more socially privileged parts of the country.[30]

Our sedentary lifestyles compound the problem. As a nation we may not be eating more in calorific terms than before but we are significantly less active. Only 8% of us are active enough to reduce our chances of developing coronary heart disease.[31] Ironically, it is in fact ***inner*** London borough residents who are more physically active than suburban dwellers, reflecting lower levels of car ownership and better public transport - a twist to the poverty story.[32] The irony gains a double twist since outer London boroughs have more green and open spaces for walking in than the inner London boroughs.

This said, large sections of inner London's population are very physically inactive. For instance levels of physical activity among black and Asian ethnic minority groups are consistently lower than the national average.[33] Many factors stand in the way of participating more actively, including lack of awareness, fear of racism, concerns about not fitting in, dress codes, and a sense that the activity in question (such as jumping around half naked in a gym) is in conflict with cultural beliefs and values.[34] Furthermore, although there are a plethora of exercise options available for those with time and money these are not always possible for low income groups.

The environment

London's environment is also under serious strain, largely thanks to our assumption that we have a right to infinite mobility. In 1996, transport

accounted for around 34% of all the energy used in the UK.[35] Road traffic contributes an estimated 97% of total carbon monoxide emissions and 76% of nitrogen oxide emissions in London.[36] Levels of nitrogen dioxide and particulate emissions in London regularly exceed National Air Quality Targets and although the situation is improving, Central London and the Heathrow area are unlikely to meet their targets by 2005.[37] Traffic and car use has increased by 20% between 1986 and 1995[38] and this is set to rise further, particularly in outer London. Even though more Londoners live in car-less households than the national average (39% as compared with 31%), car ownership in London is predicted to increase by 23,000 a year, from about 2,250,000 in 1991 to 2,700,000 in 2011.[39]

Land shortages also present a problem. As it is, 87% of new housing is on brownfield land (***See Glossary***),[40] way above the 60% government target. According to Government housing projections, London will need to accommodate a further 629,000 households between now and 2016.[41] Although over 60% of the total Greater London area comprises green space of one kind or another,[42] housing and other development pressures are likely to see this land area reduced.

London's food system

Beneath the dynamic interactions of people, products and activities lies a fundamental social, economic and environmental unsustainability. London's food system exemplifies, and in many ways acts as a powerful symbol of, the malaise at its core.

Environmental impact

It has been calculated that London's total "footprint" extends to about 125 times its surface area; in other words, it requires the equivalent of the entire productive land area of Britain to sustain itself.[43] Each year, Londoners eat 2,400,000 tonnes of food.[44] Most of this is purchased from supermarkets - the four largest supermarkets account for 67% of all food purchased.[45] Much is sourced from all over the world; 29% of the vegetables and 89% of the fruit we eat are imported,[46] a trend which looks set to rise. The environmental costs can be immense. Food transportation contributes to this: in the last ten years the amount of food transported on UK roads has increased by around 22% and the average distance travelled by 46%.[47]

The by-product of food - waste - adds to the environmental problem. London produces 883,000 tonnes of organic waste a year,[48] of which households contribute 607,000 - some 40% of the total waste they produce. Although all of this could be composted, the vast majority is landfilled, creating polluting leacheate and methane.[49] Sewage is another unavoidable output of our food system. Although this too could be

composted, hitherto most of it has been dumped at sea. With this option now banned much of it will literally go up in smoke at two new purpose built incinerators.

The food economy

As far as food and the economy is concerned, the food industry contributes significantly to the city's overall GDP, and accounts for around 11% of total jobs in the city.[50] However, these are often low status, badly paid, temporary or insecure jobs in retail or catering outlets, with very little to offer by way of job satisfaction. A limited amount of agricultural activity still goes on within the Greater London boundary; the glasshouses in the Lea Valley for instance, parts of which are included in the Greater London boundary, produce around a third of the UK's output of cucumbers, as well as significant acreages of salads, peppers, tomatoes, and non-edible plants.[51] But the London farmer is a dying breed and in any case hardly a model of environmentalism in action. Most agricultural activity is highly chemical intensive and, the Lea Valley example aside, is put to arable (***See Glossary***) and livestock production or to set-aside,[52] rather than to horticulture, which could yield greater social benefits, as this report attempts to show. It is perhaps symbolic that Heathrow, the world's busiest airport, was once a patchwork of market gardens, supplying the capital with fresh produce.

Our dependence on an increasingly globalised food economy is also growing, leading to a gradual erosion of what in many countries are ubiquitous, and essential, life skills. The ability to cook a meal, for instance, is a basic survival strategy. Nevertheless, research indicates[53] that while 93% of British children aged 7-15 know how to play computer games, only 54% can boil an egg. As adults too, never before have we been cooking less. Instead we are buying 'value-added' ready-made food. These now account for nearly 35% of the average food bill.[54]

Food and health

Londoners' health is another major casualty of our food system. Cardiovascular disease accounted for 41% of premature deaths in London in 1996, followed by cancers at 24%.[55] Better nutrition could have prevented many of them - research suggests that an increase in fruit and vegetable consumption could reduce the incidence of cancer by at least 20%,[56] while around 30% of CHD is diet-linked.[57] However, despite the abundance of fresh produce in our supermarkets, we consume far too few fruit and vegetables.

The poor suffer most. It is ironic that the so-called 'diseases of affluence' - obesity, coronary heart disease, diabetes and so forth - in fact afflict the poorest in our society,[58] including those from . disadvantaged black and

Asian communities[59] and from inner London's most deprived areas.[60] The problem lies in people's ability to obtain healthy food[61] as Government has only recently acknowledged. Food may constitute only 17% of total average national household spending,[62] but there is significant variation within this figure, rising to 22.5% for the poorest 20% in society and falling to a mere 14% for the richest 20%.[63] And while highly processed, fatty, sugary food is indeed cheap - disproportionately so because it does not reflect the environmental and social cost of its production - healthy, sustainably produced food is not. Consequently, in terms of calories per pence spent, it makes more economic sense to cheap meat products, biscuits and cheap, greasy pastries, than vegetables. These therefore become, by default, the only option available in the local shops that remain.[64]

Social exclusion

Indeed, many of the most deprived housing estates have become 'food deserts' with few or no shops selling affordable fresh produce. Supermarkets are unwilling to locate in such areas because of the low spending power of the local community and the risks from crime and vandalism. The Social Exclusion Unit's report cites research showing that of 20 unpopular local authority estates surveyed in 1994, none had a supermarket or a range of shops and that 'where shops and services are available, they often charge at above average costs. Another study found that the cost of the cheapest food in small independent local shops can be 60% higher than supermarkets.'[65] In addition, public transport connections are often poor and it can be difficult for the elderly, the disabled and those with children, to reach shops in other areas.

Food and culture

There is more at stake than our physical well-being. Our mental health can suffer too. Of course, although mental illness and today's food economy are not causally linked, they may well be cousins sharing the same ancestors - unhealthy eating habits and troubled minds can both be seen as manifestations of the same inherent unsustainability in the way we live and work. Indeed our psychological relationship with food is extremely unhealthy. Never before has there been so much food choice. Never before have we been so interested in food. London is hailed as the new mecca for all things "foodie", bristling with post-(post?)-modern eateries. Food and wine books regularly top the UK best-seller book lists; in 1998 there were two cookery books in the top ten non fiction charts. The number one seller, Delia Smith's ***How to Cook,*** sold nearly 600,000 copies in ten weeks; in comparison, the number two, a travel book, sold 200,000 odd copies during the whole year.[66] Cookery programmes attract large audiences and have given rise to a new phenomenon, the (usually

male) celebrity chef, complete with accompanying coffee table hardback.[67] Food, in short, is the new chic.

But the picture beyond the camera lens is somewhat different. Thinness is portrayed in the media as the bodily ideal, and this may in part account for the dramatic rise in food-related eating disorders, including compulsive eating, anorexia and bulimia.[68] The BSE disaster, following as it did a series of food and health concerns such as salmonella in eggs, listeria in soft cheese and patulin in apple juice, has itself been followed by enormous public concern about genetic engineering of foods and crops. Although the impact of these so-called "food scares" has sometimes been negative, particularly for the industries concerned, there has also been a very significant silver lining to the cloud over our food supply: People have begun to ask searching questions.

It seems likely that at least one result of this more critical approach to food has been the dramatic rise in sales of organic food, from £100 million in 1993 to £260 million in 1997[69], and a proliferation of alternative ways to buy food, from bicycle delivery schemes to farmers' markets. Some chefs now go to great lengths to source their ingredients locally while a few are even producing their own organic vegetables and herbs on their doorsteps. Raymond Blanc's two Michelin-starred ***Le Manoir aux Quat' Saisons*** grows vegetables in the hotel grounds while TV chef Anthony Worrall Thompson supplies one of his restaurants, Woz, with vegetables from his own garden. It may not be too soon to predict an increase in people following suit, and growing produce for their own kitchens.

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2) Urban agriculture

Nothing, like something, happens anywhere

Philip Larkin, ***I Remember, I Remember***

Summary

There is a surprisingly large amount of land in and around London where food could be, or is being grown. Some is farmed commercially, some is publicly owned (e.g. county farms, allotments, school gardens, parks), while parts are used by the voluntary sector (e.g. city farms, community gardens and community orchards). The proportion of land devoted to food growing has probably been declining, due to housing and other development pressures, funding shortages, and changes that are affecting farming as a whole. However, around half of London's households have gardens and the popularity of gardening is high and rising. Even among those keenest on ornamental gardening, there seems to be a growing interest in the edible, and a number of organisations exist to provide information, inspiration and encouragement, not only in the UK but globally.

Key facts

- Almost 10% of Greater London's area is farm land, there are around 30,000 active allotment holders and an estimated 1,000 bee-keepers
- Some 650,000 people go to London's city farms and community gardens each year
- Taken together, private gardens in Greater London occupy an area roughly the size of the Isle of Wight and the garden industry is worth an estimated £2.7 billion annually

The current situation

Commercial farm land

There are 13,566 hectares[1] of farm land[2] in the Greater London area, almost 10% of the total area, of which 500 hectares are under fruit and vegetable cultivation. Together they produce an estimated 8400 tonnes of fruit and vegetables, contribute £3 million to London's economy,[3] and provide around 3000 jobs.[4] Horticultural production is mainly in the Lea Valley area, beginning on and around the London boundary and extending 20-30 miles beyond central London. Larger enterprises are doing fairly well but smaller businesses are struggling - a familiar situation across the agricultural sector.

Areas around Reigate, Banstead and Tandridge as well as parts of Sutton and Croydon are also used for horticulture (mainly, but not solely of the ornamental and flower variety) as well as for set-aside land and golf courses. There is also one small farm of around 150 acres with a milking herd. Originally the area was owned by Surrey County Council, who allocated land to soldiers returning from the First World War, as part of a ***Homes for Heros scheme***.[5] Since then much of the land has been sold off under the Right to Buy scheme. There has, however, been some continuity of use as some smallholdings have been in the same family since the First World War. Moving further outwards, sheep, cattle and arable farming enterprises predominate. Many farms are owned by landlords who are farming at a distance.[6]

Overall, the area under commercial cultivation is in decline[7] due to development and other pressures. Indeed, since 1949, landscapes on the urban fringe defined as 'urban' have increased by 48% while agricultural landscapes have decreased by 7%.[8] A phenomenon known as 'hope value' has emerged whereby landowners allow agricultural land to become derelict in the hope that planning permission will eventually be granted for more lucrative types of development.[9] Housing and other development pressures are likely to erode this land area further.

Furthermore, the requirement, under the Common Agriucultural Policy, to reduce production means that otherwise good agricultural land is increasingly put to set-aside, or other uses. Although Bromley, for instance, has 70% of its open space in agricultural use, it is likely that the area under food production will fall.[10] Instead, the Council's Countryside Services department is working in partnership with environmental organisations in developing nature trails, planting hedgerows and in woodland management.[11]

County farms

Some outer London local authorities still own farms, which are usually run under the auspices of the leisure and countryside departments. The 600 acre Park Lodge Farm in Hillingdon, for instance, employs five people in managing a herd of 180 dairy cows, as well as 250 ewes and an assortment of goats, donkeys, horses and pigs. Some fodder maize is also grown. Although run as a commercial enteprise the farm also hosts occasional school visits. Council owned farm land also tends to be leased out to individual tenants, often through commercial property managers.

Allotments

There are 30,000 or so active allotment holders[12] gardening on 831 hectares of land, of which 273 acres (111 hectares) are in Inner London

The Lea Valley: the Sea of Glass

The Lower Lea Valley, extending outwards from North East London, has been noted for its market gardens since the eighteenth century. Established on fertile loams and within easy reach of the London markets, the industry's growth was helped by a plentiful supply of water from wells and by rail access to coal for heating the glasshouses.

Up until the early nineteenth century most production was in the open, although some nursery men grew hothouse pineapples, melons, grapes and peaches. In the early days, glasshouse production had to face competition from cheaper, refridgerated imports, but it took off after 1845 when the tax on sheet glass was removed, and as glasshouse technology developed. During this period however, the rapid growth of towns and the polluting effects of the nearby Great Eastern Railway pushed the nurseries out of Tottenham, Clapton and Edmonton and into areas such as Cheshunt, Wormley, Enfield, Nazeing and Waltham Abbey.

The early half of the twentieth century saw further changes as a result of motorized transport, enabling greater distances to be travelled and reducing the industry's reliance on London markets, although these still remained the main outlet.

The second world war halted the industry's growth and its further migration up the valley because neither the labour nor the materials for new greenhouses were available (many of which were destroyed by bombs) and in any case development activity during this period was put on hold. With flower and luxury food growing banned, glasshouses were turned over to tomato production.

However the industry boomed after the war, reaching its peak in about 1950 when around 1300 acres (530 hectares) were under glass. After this the industry once again started to decline as labour became more scarce and overseas competition more intense. In the 1950s many Italians came to work in the nurseries - in fact there were so many that the Italian Government set up a Vice-Consulate in Cheshunt, and Italian Masses were held at local Roman Catholic churches. By 1978, 50% of horticultural growers were Italian with a further 9% from other countries.

The oil crisis of the 1970s further weakened the industry, as by now the greenhouses were oil heated. In addition, much nursery land was compulsorily purchased for housing.

Today, at around 300 acres (120 hectares), the area under glass is smaller than ever before but productivity has more than trebled. The 200 or so horticultural enterprises range in size from less than an acre to 20 acres. Greenhouses are automated and most growing is hydroponic, often in peat based media and with the aid of artificial fertilisers. However, pesticide use is now lower as a result of Integrated Pest Management techniques, and technological improvements have reduced energy use. Producers are represented by the local branch of the National Farmers Union, the Lea Valley Growers Association.

Sources:

Peter Rooke ***The Lea Valley Nursery Industry: the growth and decline of market gardening in SW Herts,*** Herfordshire's Past 42, Autumn 1997, published jointly by the Hertfordshire Archaeological Council and the Hertfordshire Association for Local History; and Jim Lewis, ***London's Lea Valley: Britain's Best Kept Secret,*** Phillimore and Co. Ltd, May 1999

and 1,776 acres (720 hectares) in Outer London.[13] In inner London only 4% of the total is vacant, and there are long waiting lists for plots[14] - in the borough of Islington, for instance, there is a one year wait. In outer London, the figure stands at 18%,[15] perhaps reflecting the fact that many houses have large gardens.

Allotment sites are mostly owned and managed by local authorities. Outer London authorities have a duty to provide and maintain them,[16] unless there is clear evidence of a lack of demand, but inner London authorities are exempt from these obligations. Recently the Government has added to this the duty to promote allotments.[17] There are also a few privately owned allotment sites, around 6% of the total, although this figure is in decline,[18] suggesting that companies are now putting the land to more lucrative purposes.

Traditionally, allotment gardening has been a past-time for lower income, elderly or retired men. In 1993 for instance, only 6% of plotholders in the UK were under 35, compared with 65% over 50.[19] This picture is still largely true but is beginning to change as people from different ethnic backgrounds, younger people and families, take up allotment gardening. New entrants also tend to be younger and from higher occupational classes.[20]

Many, but not all allotment sites in the country have an allotment association which represents the interests and concerns of allotment holders. Some of the more forward thinking sites in London now have 'self-management' agreements with the local authority whereby the allotment association is responsible for collecting rents, laying down rules and maintaining the site. All the sites in Bromley, for example, are totally self-managed, and this arrangement can drastically improve the quality and uptake of plots on the site.

The law regarding sale of allotment grown produce is ambiguous. As a rule, sale for commercial purposes is not permitted unless it is for the benefit of the community but how this is interpreted depends on the local authority.

The National Society of Allotment and Leisure Gardeners is the organisation which represents and promotes the interests of allotment holders and allotment gardening. A national charity, it has been going since 1930.

City Farms and Community Gardens

The City Farms movement started in the 1970s. There are now City Farms in most parts of the UK with 17 in London alone ranging from ½ acre (0.25 hectares) to 5 acres (2.5 hectares) although Mudchute City Farm in the Docklands has a total area of around 32 acres (13 hectares). Although

Allotments - a potted history

Allotments were originally rural small-holdings held by agricultural labourers. They were introduced in the seventeenth century to compensate them for the private enclosure by rich land lords of common land previously available to all for grazing and cultivation. As the industrial revolution of the eighteenth and nineteenth centuries drew the rural poor to urban areas, so allotments became a feature of urban life. By 1908, urban allotment provision by municipal authorities became mandatory.

The first and second world wars gave a real boost to the allotment movement. With food imports cut off, there was an urgent need for the nation to become self-sufficient. Government initiated major food growing campaigns to turn parks, wastelands and garden lawns into productive vegetable plots. During the Second World War over 50% of manual workers kept a garden or allotment. Domestic hen keepers produced about a quarter of the country's eggs, and many people kept pigs too. In 1944, 300,000 acres of allotments and gardens were under crops throughout the UK, producing 1.3 million tons of food - 10% of all the food produced in Britain, or perhaps half the nation's fruit and vegetable needs.[21] The post war period saw a decline in urban food growing, as the need for major urban development ate into productive land and as the impetus to grow food waned. Since then, there have been a few brief resurgences of interest in allotment gardening and today the picture is mixed. In some parts of the country, there are long waiting lists for allotments, while in other areas plots stand vacant and overgrown.

there is usually some horticultural production - a mixture of individual allotment plots and communally kept beds - this often takes second place to animal keeping. Many keep unusual or non-commercial breeds of poultry, sheep and goats as well as livestock such as llamas more commonly reared overseas. There may also be a café or shop on site selling some of the farm's produce.

City Farms serve a primarily community and educational role, providing a day out for families and a range of educational activities for school groups. Some have developed teaching packs which link the farm's activities with school curriculum requirements. For many urban children, particularly those from the inner city, a visit to the City Farm can be the first time they come into contact with agricultural animals and food actually growing in the ground.

City Farms are usually funded through a mixture of sources including the local authority and charitable trusts, and managed by local members of the community. Almost all City Farms are affiliated to the Federation of City Farms and Community Gardens (FCF&CG), which works to promote and support community farming and gardening.

There are also 77 Community Gardens in London affiliated to FCF&CG, although there are probably many others too which are not affiliated. The Federation defines a Community Garden as a gardening project set up for community benefit which is established by, or with the community of users - a community may be a local area or a particular group of people. It is also managed by, or with input from, the main users, and must to some extent at least be accountable to them.

Community Gardens are located throughout the city, on housing estates, near railways, on 'meanwhile' or temporarily available land and in community centres. In most instances community gardeners grow mainly flowers and ornamental plants although fruit trees, herbs and tomatoes are also common. Together, London's City Farms and Community Gardens draw in around 650,000 visitors a year - roughly 10% of London's population.[22]

School gardens

Although schools have a duty to provide their pupils with sufficient space for physical exercise classes, most London playgrounds are very small and concreted over with little or no vegetation in sight. However some schools, mainly primary or first schools, have dug up the grey tarmac and created beds for fruit and vegetable growing instead. The amount they grow is usually minute, because the plots are tiny and the purpose is educational rather than nutritional.

Orchards

The UK is home to around 2,000 native varieties of apples. However, the Common Agricultural Policy has contributed to a dramatic decline in the number of orchards in the UK. The charity Common Ground promotes the 'community orchard' - small, locally managed, usually organic fruit orchards - in order to raise awareness of Britain's rich and varied apple heritage. There are around 15 community orchards in London, planted with both ancient and young trees, and many more in the surrounding region.[23] They form the focus for a variety of cultural and environmental community activities, from annual 'Apple Day' harvest celebrations to tree plantings, picnics and school trips.

Parks

As a form of publicly accessible open space, there is perhaps a limited role for individual food growing activities in parks. Nevertheless, they do harbour one or two community food growing projects; there are, for instance, community plots in Hackney's Clissold Park and in Wandsworth's

Battersea Park. There is also unexplored potential for local authorities themselves to consider planting edible as well as ornamental plants and trees in parks, streets, grass verges, roundabouts and other publicly owned land.

Private gardens

At least half of London's 2.8 million households have gardens.[24] It has been estimated that put together, they comprise nearly 20% of the total area of Greater London[25] - around 30, 455 hectares, or roughly the size of the Isle of Wight. It is impossible to say how much food is grown - 1950s research indicates that 14% of the garden area in London was allocated to fruit and vegetable production[26] but it is unlikely that the present day matches anything like this amount.

What does London produce and where does it go?

Although London currently makes only a small contribution to the UK's overall agricultural production, the range and nature of such activity is broad. London produces a wide variety of produce from grapes (even commercially) to aubergines, potatoes, cauliflower and cabbage. It is not possible to assess with any degree of accuracy how much London currently produces. Nevertheless, as a rough estimate, around 8400 tonnes of vegetables are produced commercially, while London's allotments produce around 7460 tonnes.[27] To this must be added unquantified amounts from back gardens, community orchards, City Farms and Community Gardens, as well as meat, milk, eggs and an approximate 27 tonnes of honey (see ***"Sweet returns"***).

There are currently no well developed markets for urban agriculture in London. Most of the Lea Valley grown produce is bought up by supermarkets[28] who in turn distribute it across the region. Allotment and community grown produce is either eaten by the growers and their families or shared among friends. Some is exchanged through Local Exchange Trading Schemes (see ***Economic development***). However, farmers' markets are beginning to appear in London (one took place in Islington, North London, in June 1999, and another is planned for Bromley). In addition, every Sunday there is an organic market at Spitalfields, and every third Saturday of the month there is an event similar to a farmers' market in Borough.

In addition, there are 13 registered-organic box schemes (***See Glossary***) in London as well as many other unregistered schemes which also sell organic produce. These do not necessarily distribute London grown produce but

Sweet returns

There are an estimated 1000 beekeepers in the Greater London region, although, as there is no requirement for them to register, this figure can only be approximate.[29] In many ways, bee-keeping is ideally suited to urban areas, as it makes excellent use of scarce space and, although the siting of hives is important, no planning permission is required. The considerate bee-keeper needs to take into account factors such as the proximity of children and bees' flight path, as well as protecting his or her hives from vandals. Nevertheless, the impact of the parasite varroa has been severe and has led to the loss of around 30-50% of colonies in the South of England.[30] Although varroa is manageable - it has existed among colonies in Germany for around 20 years and is not perceived to be an insurmountable obstacle - it does require vigilance and keen eyes.

The amount of honey a hive can produce varies - average yields range from 20lb to 75lb, depending on the weather, the experience of the beekeeper and many other factors - but, as a very rough estimate,[31] London's hives produce perhaps 60,000 lb or 27,000 kg of honey annually. In comparison, Britain's 200,000 odd hives32 yield a total 2,000-4,000 tonnes of honey a year[33] (around a tenth of the 22,000 tonnes we consume annually) to a value of about £15.7 million. Beeswax has an additional market value of £120 thousand[34] while the benefits arising from bee pollination are worth an estimated £137.8 million, with a further £29.8 million for glasshouse crop pollination.[35] Farmers will pay bee-keepers to move hives into their fields to pollinate their crops, although this job is only suitable for the larger bee-keepers.

All this activity is negligible compared with the more climatically favoured nations such as the US and Mexico. This said, British honey can and does command high prices in the niche market especially if marketed and promoted effectively.

Moreover, for the hobby beekeeper, urban or rural, bees yield sweet returns from relatively little investment. The British Bee-keeping Association (BBKA)[36] estimates that bee-keeping demands an initial outlay of around £150 and half an hour's work per hive per week between mid-April to August, as well as two more intensive (and sticky) periods of activity twice a year when the honey is extracted. It is generally recognised that urban hives actually produce greater yields of honey than rural hives because cities are home to countless and diverse species of plants and flowers from all over the world, in comparison with the increasingly monocultural wilderness that is our countryside.[37]

In addition, hobby bee-keepers already enjoy significant support from the Ministry of Agriculture, Fisheries and Food (MAFF). There are regional inspectors throughout the British Isles who inspect hives, carry out varroa checks and provide a range of information to beekeepers. This system of support may well be unique throughout the world.[38]

Some land is available in London for bee-keeping - a hive can be kept on a site as small as two square metres. both on the urban fringe and in built up areas. Indeed many hives are kept on rooftops, which not only makes excellent use of space but also keeps the bees' flight paths safely above street level. Indeed, Robin Leigh Pemberton, ex-Governor of the Bank of England, used to keep bees on the roof of that venerable establishment.[39]

some do, nevertheless, seek to source food as locally as possible, buying from wholesalers only as a last resort.

Who's involved in urban agriculture?

Gardeners

Gardening is extremely popular. There are gardening programmes on the television at prime viewing hours almost every night. The garden industry is worth £2.7 billion a year, with consumers spending around £1,665 million of this on plants, tools and garden furniture.[40] Four fifths of British adults claim to garden in one way or another[41] and 39% describe themselves as keen, spending as much time as possible in the garden.[42] Some 14% of Londoners (13% nationally) grow at least some of our own fruit and vegetables (this may mean growing a few tomato plants or cultivating an allotment)[43.] but there is considerable variation within this, the percentage rising to 21% among the over 65s and falling to 5% among 20-24 year olds.[44] People within the AB social brackets are also more likely to grow their own vegetables (18%) than people in social brackets C (13%), or D and E (11%).

Organisations

A number of national and local organisations work to promote the interests of those engaged in urban agriculture, including those already mentioned; Common Ground, the Federation of City Farms and Community Gardens, the Lea Valley Growers' Association, and the National Society of Allotment and Leisure Gardeners. The Permaculture Association of Britain, which works to promote permaculture (***See Glossary***) strongly emphasises the value of urban food growing and runs trainging courses in its methods. The Soil Association, a long established charity which promotes organic agriculture and sets organic standards in the UK, supports urban food production as part of its campaign to promote 'local food links' between producers and consumers. The London Organic Food Forum also promotes and advises on organic food growing in the capital. The Henry Doubleday Research Association runs a 'Grow your own organic fruit and vegetables' campaign, and provides a range of free and low cost information on anything from fruit tree pruning to budget gardening. Thrive (formerly Horticultural Therapy) promotes gardening of all kinds as a form of therapy. The Allotments Coalition Trust has recently been set up (under the auspices of The Land is Ours) to promote allotment gardening and protect allotment sites.

Gardening Which? Magazine is also working, in partnership with the Federation of City Farms and Community Gardens to promote community

gardening activities. Through its Gardens for People campaign its aim is for there to be 1,000 community gardens in Britain by 2000. In addition to lobbying and awareness raising work it provides community gardens with practical advice and free subscription to the ***Gardening Which? Magazine.*** It also runs a pre-recorded telephone advice line charged at local rates.

Other institutions have pointed to the value of urban food growing, including the Chartered Institute of Environmental Health and the London Planning Advisory Committee, whose report states: 'The value of agricultural land in contributing to sustainability is clear,' and recommends that 'agricultural land within and adjacent to London needs to be maintained in productive use, particularly the land of highest quality'.[45]

The global picture

A wide range of international organisations recognise and, in some cases, vigorously promote the value of urban food production. They include the World Health Organisation, the Food and Agriculture Organisation, the World Bank, the United Nations Development Programme, the United Nations High Commission for Refugees, UNICEF and the United Nations Centre for Human Settlements (UNCHS), as well as government agencies such as Denmark's DANIDA, Germany's Germany Agency for Technical Co-operation (GTZ) and Canada's International Development Research Centre (IDRC).[46] ***A Support Group on Urban Agriculture*** was established in 1992 comprising major donors and international agencies. ***AGUILA*** is a network of 16 Latin American countries sharing information about urban and peri-urban agriculture, and other networks have been or are being established in West Africa, Southeast Asia, and Europe. A non-profit organization was created in the United States in 1993 called ***The Urban Agriculture Network,*** which has conducted research studies and promotion of urban and peri-urban agriculture throughout the world. Numerous non governmental organizations (including CARE, SAVE and Oxfam) are involved in urban food growing projects in both developed and developing countries. A growing number of universities offer graduate degrees in urban and peri-urban agricultural studies.[47]

This amount of activity is not surprising, given that an estimated 800 million people are engaged in urban agriculture world wide.[48] Urban agriculture projects can be found all over the world, from Sana'a in the Yemen, to Ulan Bator in Mongolia.

Urban agriculture is an important source of income for many poorer households. In some cities, between one-fifth to one-third of all families are engaged in agriculture, with as many as a third of these having no other source of income.[49] Tanzania's 1988 census found that urban agriculture was the second-largest employer in the Dar es Salaam district, with around

one in five adults of working age involved in this activity.[50] The Food and Agriculture Organisation even suggests that the productivity of urban production can be 15 times greater than for rural agriculture,[51] a fact which seems to have been lost on policy makers in richer countries.

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3) The environment

listen: there's a hell
of a good universe next door; let's go

e.e.cummings, ***pity this busy monster, manunkind***

Summary

People who grow food in cities are not, inevitably, environmentally benign. Commercial, public and individual growers can use the same proportion of energy and agri-chemicals, produce the same narrow range of produce, and generate as much waste as their rural counterparts. Similarly, they can be just as good for the environment as some rural farmers, but with the added advantage of being closer - literally - to consumers. Biodiversity can be enhanced, as the tighter confines of urban areas encourage variety, both within and between species of plants (and animals). Shorter food transport distances can reduce packaging (and, therefore packaging waste) and the environmental damage associated with "food miles". Home-composting, and other composting options (including for sewage) can diminish waste and provide the growing medium for more food.

Key facts

- An estimated ¾ of allotment holders use insecticides, but almost the same proportion compost their waste
- Composting kitchen waste could eliminate 40% of household rubbish, and research suggests that compost can reduce diseases in strawberries and peas
- Some 60% of Londoners said poor air quality and too much traffic topped their list of health concerns – locally grown food could reduce food transport, so improving air quality

The current situation

There are almost as many ways to grow food as there are growers. Some improve the natural and social environment while others are damaging. The mainly hydroponics based (***See Glossary***) commercial horticulture in the Lea Valley, for instance, is highly energy intensive, relying on artificial heating and lighting, fertilisers and soil-less media such as rockwool and peat.[1] The produce is mostly sold on to supermarkets who distribute on a centralised basis, so bypassing local shops. Growers do, however, use fewer pesticides now, since the introduction of Integrated Pest Management systems (***See Glossary***).

Hydroponic growing

Hydroponics make excellent use of limited space and is often suggested as the way forward for urban agriculture. In addition to hydroponic cultivation in the Lea Valley, there are several shops in London supplying hydroponic systems to hobby growers.[2] However, the environmental impact of hydroponic agriculture is questionable. One study[3] compared the ecological footprints of field-grown with hydroponically produced tomatoes. It found that although, for the same growing area, the productivity of the latter was 5 to 9 times greater, once other factors were taken into account, including all the necessary inputs and land needed to assimilate the waste produced, the ecological footprint of the hydroponic system was 14 to 21 times higher than that of the field method. In other words, to produce 1000 tonnes of hydroponic tomatoes requires 14 to 21 times the amount of ecologically productive land than that required to produce 1000 tonnes of field tomatoes.[4]

The Soil Association will not class any form of non-soil production as organic even if it uses no chemical inputs. Nevertheless, many urban producers in poorer countries grow hydroponically, using for instance, waste coconut matting and waste water. This 'intermediate technology' approach to hydroponic growing could be one very useful way forward for urban agriculture in London, simultaneously maximising space, recycling industrial by-products and circumventing soil contamination problems where they exist.

Non-commercial food growing presents a more mixed picture. Some allotment growers drive to their plots - having first driven to an out-of-town superstore for artificial inputs and peat - before spreading the ground with an array of chemicals. One national study[5] suggests that around 38% of allotment growers drive to their plots, while 75% use insecticides and a third weedkillers.[6] Although no-one has done the sums, a grower doing all of these things may well negate the environmental contribution he or she makes by growing the food; after all, once all the inputs have been taken into account, the food is only nominally local.

Many other growers, however, walk to their plots, compost their waste and garden organically. There is a fast growing interest in organic gardening. Membership of the Henry Doubleday Research Association (HDRA) for instance, grew from 6000 in 1986 to 25,000 in 1999.[7] Membership is strongest in the South East and, in addition to the national members, there are now eleven local HDRA groups in and around London.

Membership of the London Organic Food Forum, a local branch of the Soil Association, has grown too - from a handful in 1997 to around 130 in 1999.[8] Research also shows[9] that new entrants to allotment gardening are less likely to use artificial inputs, suggesting that this shift towards sustainable practices will grow in the future.

Food, in fact, seems to catalyse environmental concern and action. People are starting to think before they swallow, as the rise in organic food sales

The North and East London Waste Minimisation and Management project

NELWMMP works with 15 businesses in Newham, Tower Hamlets and Hackney to reduce and reuse the waste they generate. Each business is assigned a 'project champion' to help them achieve their aims. Spitalfields market in Tower Hamlets is one of the participating businesses and every week, the project champion collects the vegetable waste from the Sunday organic market and takes it to the nearby Spitalfields city farm, where it is composted. She is also aiming to phase out polystyrene take-away cups by the end of 1999.

One knock-on effect has been that the project champion has also developed an arrangement with the charity Crisis Fairshare, which distributes Sainsbury's donated food to the homeless. Crisis now takes whatever surplus remains to the city farm where the food is given to the animals or composted. As an extra bonus, the Crisis volunteers have now become involved both in the activities of NELWMMP and the city farms.

NELWMMP is managed by the Environment Agency, London Environment Centre, the Women's Environmental Network and the London boroughs of Hackney, Tower Hamlets and Newham, and funded by the Single Regeneration Budget.

indicates (see London: an introduction). Thus while domestic garden chemical use is growing fast, from 1354 tonnes of active ingredient in 1992 to 2285 tonnes[10] in 1997, the problem, it appears, lies more with the lawn than the leek. Herbicides - used on lawns and hard surfaces such as drive-ways - account for all of the increase while sales of insecticides and fungicides - substances more likely to be used by food growers— are seeing a reduction in sales from 440 tonnes in 1992 to 266 in 1997.[11]

Many community food growing schemes have clear environmental aims - to promote biodiversity through organic growing, reduce waste through recycling and composting and minimise food transportation through local food production. The Becontree Organic Growers project ,for instance, not only cultivates organically, but does so without the use of mains water. It also recycles practically everything - from municipality-donated leaves (for compost), to old rubber conveyor belts (for compost bins) and supermarket trolleys (for climbing beans). Green Adventure in South London and Growing Communities in North London both grow food locally, manage box schemes which source from growers near London, and carry out a range of conservation and other activities. And although most city farms do not have an explicitly organic remit, many are indeed so by default, to avoid the risks incurred by using chemicals around young children. Most also compost their vegetable waste and manure and provide a cheap source of compost for the local community.

Waste reduction through composting is perhaps one of the most visible benefits of food growing schemes. Composting is not confined to community based activities. One Southwark based survey suggests that 70% of allotment gardeners compost their waste, compared with just 30% of household (largely non food growing) gardeners.[12]

The relationship between local food growing and reduced food miles is less clear. Although eating London grown rather than Spanish spinach probably does help reduce food miles (unless it is grown very intensively), if the amount of food grown is small, then the impact will be negligible. Although many allotment growers grow significant quantities of vegetables, many community schemes yield very little per participant. It could also be possible that food growers over-compensate for their economic or food miles savings (depending on their motives) by buying in imported foods they would not otherwise be able to afford or would feel guilty about purchasing - the 'I had a salad for lunch so I'll have a cream bun for tea' approach to guilt management.

This said, some US based research suggests a more positive picture. This found that the food growers surveyed did indeed eat more - and more seasonal - vegetables than their non-gardening counterparts, while also consuming less citrus fruit and fruit juice, which they would not have been able to grow. In this case gardening may reduce both food miles and the environmental impact of food processing (see The Philadelphia Urban Gardening Project ***case study***). Another study from California indicates that a 4,500 square feet plot (418 m2) can supply virtually all the food an individual requires, providing space not just for growing but also for composting and other necessary activities (see The Nutrition Garden Project ***case study***). In other words, relatively little land is needed to create an ecologically closed loop and practically eliminate food transportation. Of course this amount of land is not available for everyone in London even if our climate were as amenable to food growing as California's, nor does everyone have the time or inclination to commit to virtually full time gardening for several months of the year. But it does show that urban food growing can have a significant role to play in reducing food miles and it also provides a useful standard against which to measure attempts at self sufficiency. Moreover a totally self sustaining system is not necessary - bulk crops such as grains are better grown outside the city where land values are lower and there is more space available.

The potential

The new Greater London Authority, when it comes into office, will have, as one of its functions, responsibility for co-ordinating specific action on the environment.[13] This will include promoting sustainable development in transport, spatial development and economic development; developing an air quality strategic plan, a municipal waste strategy and promoting local

Agenda 21 and biodiversity. In addition, the Mayor will have to produce a three yearly State of the Environment report for London, while the Greater London Assembly will have the ability to undertake research into any subject - including the environment - they think appropriate. There is a good deal of potential for developing and pursuing a sustainable food growing strategy within this context.

Biodiversity

London's parks, gardens and green spaces harbour a wealth of ornamental and wild plant species from all over the world. They also provide a more welcoming environment for birds and other wildlife than our chemical-sprayed countryside.[14] Urban food growing can add to this diversity; growers can, and often do, grow a range of fruit and vegetable species which are not commercially available. The Henry Doubleday Research Association runs a Heritage Seed Library which gives subscribers non-commercial seeds in return for a small annual membership, and many of London's HDRA members take part in this scheme. Added to this, many Londoners of ethnic minority origin grow vegetable varieties and species not traditionally found in the UK.

The new Mayor, when he or she comes into office, will have 'the power to promote biodiversity in London' (though how remains unclear) and the London Ecology Unit will be absorbed into the Mayor's office. The London Biodiversity Partnership, a consortium of public, private and voluntary organisations[15] is developing a Biodiversity Action Plan for London. This, based on an audit and assessment of the present situation, will propose targets and a strategy to increase biodiversity in London and set out a long term monitoring programme. Many local authorities are also developing their own local Biodiversity Action Plans, usually as part of their Local Agenda 21 activities. Both the London-wide and the local plans could usefully include strategies to increase the number of organically managed allotments and other food growing areas as a means of fulfilling their objectives.

Since local authorities now have a duty to promote allotments, encouraging organic methods within this context would be fairly uncomplicated. Activities could be as simple as, for instance, highlighting organic gardening in promotional leaflets or including information about organic gardening in plot holder's bills. Councils could also promote organic allotment and other forms of gardening through their local Agenda 21, health, youth work and other activities.

A further step might be for local authorities to develop organic-only policies for allotment sites. Some are already doing so for their parks. For instance, Fryant Country Park in Brent is now organic and Southwark Council is committed to 'zero-pesticide' use.[16] The Pesticide Trust's Green Flag Awards

scheme, which encourages local authorities to reduce their use of pesticides in parks, attracts greater numbers of entrants each year and The Corporation of London-owned Queen's Park, Highgate Wood, West Ham Park and Hampstead Heath are all award winners.[17]

An organic-only policy for allotments would only work, however, if there was widespread support among existing allotment holders for such a move - which in some cases is unlikely to be forthcoming.[18] More 'traditional' allotment gardeners may object strongly enough to give up their plot - which, ultimately, defeats the object of encouraging involvement in food growing. A more promising approach might be to designate part of a site (again, with the support of existing plot-holders) as organic. In instances where the local authority is bringing an almost abandoned site back into use, there could be more leeway for specifying organic-only methods at the outset. Indeed with proper promotion, this could help revamp the allotment's image, presenting allotment gardening as a dynamic instance of environmentalism (and community building) in action.

Another way local authorities could encourage biodiversity is by very simply not getting rid of allotments even where there is no current demand for them. Underused sites can, for instance, provide space for horticultural training schemes, community food growing projects or for City Farms or Community Gardens. Furthermore, uncultivated allotment sites can have a very important role to play in providing habitats for wildlife.[19] While this is not an argument for turning allotment land into nature reserves it does strengthen the case for keeping them on regardless of their popularity. In fact, managing areas for wildlife or planting community orchards and wild food species with the involvement of the local community might actually encourage more people onto the site. As and when demand increases, some of these areas can once again be used for food growing.

Waste

The new Mayor of London will be required to prepare an 'integrated municipal waste management strategy which integrates the various recovery, treatment and disposal options'[20] in order to promote London's sustainability and meet national waste reduction targets. Government recommends that 40% of households with gardens should be composting their waste by the year 2000. Research commissioned by the London Planning Advisory Committee - who will be incorporated into the GLA - recommends that this figure should rise to 70% by 2005.

Packaging

Urban food growing can help reduce the waste generated by food packaging. Packaging, much of it food related, accounts for around 7% of

the total weight of waste going to landfill, and for 11% of the energy used by the whole food system.[23] Industry surveys have predicted a 'need' for a 4% increase in food packaging between 1993 and 2000 because of the rise in single person households.[24] The food industry argues that food packaging is essential to reduce waste - in poorer countries as much as 50% of food[25] is said to be lost before it reaches the consumer, compared with only 3% in richer countries. It also argues that processed foods generate less waste over the entire food chain system than fresh produce because less processed food is thrown away at the point of consumption and the waste from food preparation in the processing plant is often used in another part of the food processing system. Nevertheless, these claims only stand if the status quo - a globalised food production and distribution systems and a high speed, convenience food culture - is non-negotiable. Neither does the food industry's argument take into account the potential for composting food waste.

Home composting

Composting kitchen waste can virtually eliminate around 40% of household refuse.[26] The advantages of composting in fact go beyond its impact in reducing waste and landfill. As a growing medium, compost provides an alternative to peat, the extraction of which destroys irreplaceable boglands. Compost can also help improve urban soil by making it more permeable and thus able to absorb and hold water and air.[27] This is very important in London and the South East where water shortages may well become more frequent, and where vast areas of concrete, tarmac and highly compacted soil mean that rain simply runs off the land. Compost can also provide an alternative growing medium where land is too contaminated for safe use (see Sustainable land use). In fact the organic matter in compost can also bind itself to heavy metals, so reducing plants' uptake of heavy metals,[28] quite apart from its 'diluting' effect on the soil. As an added bonus recent Department of Trade and Industry funded research[29] suggests that compost can actually reduce the incidence of diseases in a range of crops, such as strawberries and peas, by between 60 - 80%.

From an environmental point of view, home composting is the best option, creating the tightest of closed ecological loops and eliminating 'waste miles' entirely.[30] Indeed, were 70% of households with gardens to compost their kitchen and garden scraps, 49% of all domestic waste could be diverted at source.[31] However, composting is not possible for everyone, since half the homes in London do not have a garden, and those that do are often very small. This can make it hard for some people to find space for composting, although a range of compost bins are available which require minimal space, and even gardenless households can compost waste in indoor worm composters. Nevertheless, there a correlation between the size of a garden and the composting rate.[32]

Other composting options

Community composting schemes come a close environmental second, and could be an option for gardenless homes or for those with small gardens. A number of such schemes are already being developed on housing estates in London, but they face a number of logistical and motivational problems.[33] Sunnyside Community Gardens for instance runs schemes on two estates. However, very few people actually bring their kitchen waste there for composting even though many were positive about the scheme when it was suggested. The task of turning and managing the waste is left entirely to the overstretched Sunnyside workers. One possibility might be to build responsibility for such schemes into estate management contracts. By reducing the amount of waste they produce the estates could also earn recycling credits ***(See Glossary)*** which would provide cash for spending on other projects.

Centralised composting schemes can deal with larger quantities. There are two in London, in Sutton and Croydon, as well as four bordering the city, all of which only compost green, rather than food waste. The compost produced is sold through garden centres. However as the waste is trucked in from all across London, these schemes do in themselves incur environmental costs. Nevertheless there is scope for creating smaller and more local schemes in London, so reducing 'waste miles.' Sutton is already composting its parks waste on site. A further step, and one which few in the UK have made so far, could be for local authorities to collect food waste for centralised composting. St Edmundsbury in Suffolk now provides households with a separate bin for green and putrescible waste which it picks up fortnightly along with the ordinary waste.[34] In Germany there are growing numbers of household collection schemes which feed composting plants throughout the country (379 in 1995 with a further 118 planned).[35] Such schemes may be suited to areas where community composting schemes have not worked.

One drawback to central schemes is the problem of contamination by glass, plastic or other waste. People are likely to take less care sorting their waste for an impersonal authority than for a community composting scheme or for their own back-garden heap. St Edmundsbury found that initially 18% of the organic waste it collected was contaminated. Nevertheless, its subsequent promotion and educational proved very effective, reducing the level to 1% within a year.

Another problem is that composting plants can be smelly and planned developments can provoke strong opposition from local residents. However, smell-free technology, for want of a better phrase, does exist. Anglia Water Services and Ipswich Borough Council have set up an odourless batch tunnel composting plant at Ipswich, the first of its kind in the UK.[36] Although the technology is very expensive, as landfill sites become scarcer and landfill tax higher, it will begin to make financial sense.

As well as domestic waste, horse riding schools and police stables already sell or distribute manure to gardeners in London as do city farms. One composting research company in Exeter, EcoSci, has produced ZooPoo 'specially produced for your garden by Duchess and Mickey in association with West Country Compost,' an idea which London's zoos might adopt.

Waste can also be fed to animals, as the Spitalfields scheme already does (see The North East London Waste Minimisation and Management project). Until the early 1970s, a significant amount of London's waste was fed to pigs.[37] Using food waste to produce ethanol for fuel is another possibility and a plant for this purpose is now being constructed in Naples.[38]

Sewage

Sewage is also compostable. In 1997/8 London[39] produced 117 thousand tonnes of it in dry weight.[40] Most of the sewage - around 78 thousand tonnes - was dumped in the North Sea but as this option has recently been banned Thames Water will be burning it in two new purpose-built incinerators instead. Incineration has a few environmental advantages: the process reduces the volume of waste to 14-20% of the original, meaning that fewer vehicles are needed to transport it, and the ash is starting to be used as a cement substitute for construction. However, incineration is extremely expensive, comes with considerable environmental drawbacks (such as polluting emissions) and means that fertile matter ends up in the atmosphere instead of in the ground.

Last year Thames Water also spread or injected 37 thousand tonnes of sewage onto agricultural land.[41] Anaerobic digestion is the main method of treatment, producing a fairly inert end product as well as methane ***(see Economic development).*** Because of the need for strict health and safety standards and the expense of setting up the appropriate machinery, applying this treated sewage on agricultural land is really only suitable for large fields, and so for larger farmers. Moreover, the British Retail Consortium are opposed to using treated sewage for food growing[42] and MAFF bans all but fodder crop production on such land.

The aerobic treatment and subsequent composting of sewage is an alternative. It can produce a better end product and, provided high enough temperatures are reached, is perfectly safe as a medium for food growing.[43] Unlike anaerobically digested sludge, it does not demand expensive technology and stringent health and safety controls to apply and could therefore be suitable for smaller scale farmers. Dewatering the waste reduces its bulk, so reducing transportation costs. As with all compost, it is essential to develop clear standards to allay possible fears about its safety and to promote market development.

There are, too, concerns about the build up of heavy metals in the soil, a problem requiring 'back up the pipe' solutions, in other words, the

separation and treatment of contaminating waste at the point of production before it is released into the general sewage system. Increasingly though, water companies are refusing to accept heavily contaminated effluents, which should give polluting companies an incentive to improve their practices.

The future for waste

Undoubtedly, many technical and logistical problems will need overcoming if London is to develop a comprehensive composting strategy for all its green, food and sewage waste. These are not insuperable given political will and adequate funding, and both will need to be forthcoming by 2000 when the EU directive banning the landfilling of untreated waste becomes law.[44]

Action is already underway. A range of organisations - including Waste Watch, the Community Composting Network and London Waste Action are already examining ways of addressing our waste problems. The Composting Association and Environment Agency are also working together to develop quality standards for composting ***(see Economic development)*** - essential to market development. The recent rise in landfill tax and the ability to earmark a proportion of tax receipts for local environmental projects could also increase opportunities for composting. So far £70 million has already been channelled through the landfill tax, some to composting schemes.[45] This could in turn generate more food growing initiatives; the Proper Job Community Co-operative in Devon ***(see case study)*** has already made the connection between its landfill-tax funded compost scheme and its food growing and catering activities.

Food miles

Although our food system is increasingly globalised, there are a few promising counter-trends towards more local food sourcing. Several retailers now employ staff to examine ways of reducing food transportation. Asda plans to have held twelve farmers' markets in its stores between April and September 1999.[46] All the produce sold must be grown within 30 miles of the store or produced locally using at least one local raw ingredient, and sold by the producers themselves. The major supermarkets are also arguing for greater support for UK organic growers[47] ***(see Economic development)***. The National Farmers' Union has recently launched its ***Proud to Serve British campaign***[48] urging catering outlets to serve British produce. By January 1999 over 200 canteens and restaurants, including the House of Commons, had signed up to the initiative. The Local Government Association has also come out in support, urging Councils to serve British produce wherever possible in their schools, canteens and through community services.

The Mayor will have a duty to improve air quality and to develop an integrated transport strategy, consistent with national policies[49] and delivered through a new body, Transport for London. London boroughs will have to put this transport strategy into practice by developing 'local implementation plans.' While London has a number of very pressing and direct transport needs such as better public transport, one complementary strategy which the Mayor could develop and the boroughs implement is a more localised food system. Government policy mainly focuses on diverting freight from road to rail and water and to improving the logistics of delivery systems, rather than on developing more local goods and service providers. However, local food links - including local food growing, farmers markets and box schemes linking consumers with producers in and near London - could reduce both the need to travel (by car, to supermarkets) and to freight in goods from all over the world. The London Development Agency will have a responsibility to promote regional competitiveness and improve local skills. By working together to promote and develop a local food economy the LDA and Transport for London could help achieve a more vigorous economy ***and*** a more sustainable transport system.

The impact of such schemes would be minimal at first - a few box schemes are hardly going to affect the quantities of produce which supermarkets and other retailers freight in. Nevertheless, such schemes could yield wide, if subtle, benefits, for instance by raising awareness of the links between food, sustainable transport and sustainability in general. Research[50] shows that transport is a major concern for Londoners - 60% of Londoners said that poor air quality and too much traffic were top of the list of factors affecting their health. Food growing could piggy-back upon this concern, so reaching that audience (fast dwindling anyway) not immediately concerned about food issues. Strategic support for local food schemes could in time encourage supermarkets to develop links with local, including urban, suppliers.

Another, perhaps whimsical approach might be to explore the potential of the River Thames for transporting food. The White Paper[51] notes that this is a 'greatly under-used asset in London. It has potential for passenger transport and for freight.' One possibility might be to develop floating markets of locally grown produce, as in Bangkok, which would serve local needs and promote the river as a tourist attraction.

The Greater London Assembly, using its power to investigate any London issue it chooses could also undertake research into the most 'food miles saving' crops to grow, within the limitations set by London's climate and soil. These may include substituting for air freighted luxury produce such as herbs[52] and out-of season strawberries; alternatively it might include substituting for foods such as broccoli, which travel a shorter distance by road but which are heavier and relatively cheaper and may therefore have more of an impact on London's overall freight traffic. These foods may or

may not be the same as those which best meet dietary health needs ***(see Health)*** and economic requirements ***(see Economic development)***, which would also merit research.

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4) Economic development

The trouble with the rat race is even if you win, you find out you're still a rat.

Lily Tomlin

Summary

Unlike for other farming sectors, there is currently no financial or other Government support specifically for the urban food grower. There is little research data on the economic value of city-grown food, although conventional measures of value seem unlikely to capture its multidimensional worth, even at current levels. And the potential is tremendous. Based on experience in London, the UK and internationally, the capital could farm livestock, a wide range of fruit, vegetables and herbs, honey, speciality mushrooms and fish. Processing and marketing, as well as production, remain underdeveloped, and farmers' markets, Women's Institute markets, Local Exchange Trading Schemes, box schemes and so on would all merit further research and development, by local authority purchasers or commercial companies. The same is true of composting and ancillary industries.

Key facts

- Several species of fish have returned to the Thames as its water quality improves
- The value of London's composted waste has been estimated at £6.1 million, and could generate 350 full time equivalent jobs
- Thames Water sells treated sewage and, in the process, generates enough methane to supply power to 6,000 homes

The current situation

What is now left of London's commercial agricultural food sector is under strain ***(see Urban agriculture)***, squeezed between urban housing and other developmental pressures ***(see Sustainable land use)*** and a skewed system of agricultural support which favours large scale cereal and livestock producers - not a vision easily applicable to inner city London - over horticultural and other small scale growers.

There are no specific policies to support small producers, organic or otherwise and horticultural growers receive no direct aid, unlike many other farming sectors.[1] The consequences are that the notion of a profitable small scale, organic horticultural enterprise is virtually a contradiction in terms.

One award winning organic herb producer[2] is unable to make a living from horticulture, and in fact subsidises her one acre farm through her writing work. Faced with overwhelmingly strong competition from well-supported organic producers overseas, it is hardly surprising that around 80% of organic fresh produce is now imported.[3]

This is a pity, since it is in the fresh produce market that customer demand for organics is highest.[4] The green lobby is not alone in campaigning for more support for organic farming. Recently, a group of the UK's leading supermarkets[5] has expressed its frustration at the lack of UK grown organic food supplies in the face of ever increasing demand from consumers, and is calling for greater support for UK organic farmers.[6]

For community food growers, the situation is even less lucrative. There is at present not a single project in London which is even remotely self financing - all are reliant on grant funding, volunteer time or both. However, except for some coriander growing on allotment sites for sale in local food shops (probably illegal, although most local authorities turn a blind eye), most food production in London is not primarily motivated by financial considerations.

This may be a fairly recent development. Allotment gardening was traditionally a working class pursuit which combined recreation with a way of supplementing the household budget. Now though, while undoubtedly a welcome contribution for some, cost savings usually come fairly low on many allotment gardeners' list of reasons-to-garden.[7] What is more, those new on the allotment scene tend to be younger, more educated, often middle class,[8] suggesting that for subsequent generations, cost savings are likely to be even less important.

The cash value of locally grown food

A 1993 survey found that allotment gardeners spent around £50 a year on gardening inputs,[9] roughly equivalent, allowing for inflation, to the £84 which the average household (largely ornamental) gardener spent in 1997.[10] Although the aesthetic and other pleasures of growing flowers have a value in their own right, food growers gain a particularly tangible, or rather edible, return on their investment and one which can be costed. One US study of 150 vegetable plots found that the average net economic value of the produce grown was around $113 a year ***(see Philadelphia Urban Gardening Project case study)***.

The Local Exchange Trading System ***(See Glossary)*** is another way of assigning value to locally grown food. Although it constitutes a very small part of LETS activity, the charity LETS-Link UK estimates that virtually all of the UK's 450-odd schemes do trade in food with around 10% running LETS-Grow and LETS-Eat schemes specifically to encourage more food

growing and exchange.[11] Green Adventure and Growing Communities ***(see case study)*** accept LETS as part payment for its vegetable boxes ***(See Glossary)*** while North London LETS has just started a LETS cafe, which accepts LETS currency. It has also received funding to provide NVQ ***(See Glossary)*** training in food handling.

Given the potential economic value, albeit unrecognised, some organisations have started community food growing schemes with the explicit aim of benefiting and involving low-income groups. This, however, has often proved difficult ***(see Community development)***. Ironically, it may be the middle-income groups, who have less need of the financial benefits food growing can bring, who have been contributing most to the alternative and informal food economy.

Alternative measures of value

Although community food growing relies on grant funding and as such does not appear to be viable in conventional terms, a broader perspective might question this. Community schemes can create a sense of purpose among participants and serve a valuable social and recreational function ***(see Community development)***. By promoting mental and physical well-being and so reducing the incidence of serious and expensive illnesses such as cardiovascular disease, food growing can lessen the burden on public bodies such as the NHS and Social Services ***(see Health)***. Many projects involve people with special needs, all of whom have a right to work or carry out purposeful activity but who require extra financial and other support. The need to provide funding for this must go without saying in any civilised society. Added to these social gains are the environmental benefits of sustainable food production ***(see Environment)*** and the costs avoided by engaging people in leisure activities which are not damaging - worth considering in the age of the transatlantic day-trip. Moreover unpaid voluntary work has it own monetary value; one study suggests that for every pound an organisation invests in a volunteer, the organisation gains between £2 and £8 worth of work.[12]

Some organisations[13] have in any case challenged the usefulness of Gross Domestic Product as an indicator of national economic progress, suggesting an alternative Index of Sustainable and Environmental Welfare, which incorporates non-monetary costs and benefits. The emphasis here is not on 'how much money can we earn?' but on 'what do we need in order to sustain a high quality of life?' Rather than valuing abstractions, namely pounds in circulation, it considers just what those pounds are meant to achieve - food, health, hope (as a major multinational once said) for all.

A number of organisations are developing economic initiatives that incorporate social and environmental objectives. The Soil Association's Food Futures programme brings together private, public and voluntary

organisations and individuals to develop a sustainable local economic food strategy for their area. Still in its early stages, the programme has nevertheless generated interest among some local authorities in London and elsewhere. The British Trust for Conservation Volunteers has secured European funding to develop social enterprises in East London and the newly established Social Enterprise London works along similar lines. The International Common Ownership Movement (ICOM) promotes the development of co-operatives, many of whom have an explicitly social and environmental remit. All these could play a part in promoting food growing and related business on their own, in partnership with local regeneration schemes and, at a wider level, with the future London Development Agency.

The potential

Production

The Mayor of London will be responsible for developing and implementing an economic development strategy. He or she will have to do this 'in a way which contributes towards sustainable development.'[14] As land reclamation will also be part of the LDA's duties (taking over this role from English Partnerships) there could be potential for killing two birds with one stone - creating jobs in food growing while regenerating London's green spaces.

London's warmer microclimate and nearby ready markets mean that a comprehensive economic food strategy for London could make a real contribution to London's regeneration and economic development. While such a strategy may bear little relation to Government policy on international competitiveness, it would be very much in keeping with its area based approach to regeneration, as embodied in the New Deal for Communities[15] and Single Regeneration Budget[16] schemes ***(see Community development)***. It has also made benign gestures toward green economic development in, for instance, the consultation paper on sustainable business.[17] All these offer scope for food growing.

Animals

Livestock keeping and egg production can and do already contribute to London's formal and informal economies. Animal rearing is, for instance, a major activity for city farms and commercial enterprises on the urban fringe. Poultry and rabbit keeping were common in the past and still continue on a smaller scale today. Sheep and cattle could keep grass down in parks, substituting for petrol-driven mowers; a fanciful suggestion, perhaps (although there are deer in Richmond Park), but one whose 'kiddie appeal' might encourage more people to visit some of London's less popular or frequented open spaces.

The focus of this report, however, is on horticulture which makes better use of space, delivers greater health benefits ***(see Health)*** and, being more labour intensive than other forms of farming could generate more jobs.[18] In addition, animal rearing raises additional health and safety issues which are beyond the scope of this report. However this section also looks briefly at mushroom cultivation, honey production and fish farming partly because they may be particularly well suited to urban areas and partly because they could yield additional benefits, as, say, visitor attractions.

Horticulture

Salads, early season vegetables, 'exotics' such as aubergines and courgettes, 'heritage' or non commercial varieties and herbs could perhaps yield most economic potential. There is a need, however, to balance commercial against other considerations, such as the contamination question (leafy vegetables are more prone to contamination than fruits or roots - ***see Sustainable land use***) and the need to make fresh produce available and affordable to deprived communities. Furthermore, different groups of people have different tastes. Some communities prefer vegetables such as carrots, onions, and cabbages, which generate lower financial returns, while others might prefer traditional Asian or Caribbean vegetables.

The land type also dictates the scale of the horticultural activity. Inner city areas with very limited land are probably better suited to hobby and community gardening rather than commercial cultivation, although there is also room for training schemes ***(see Education and training)***. On the other hand, sustainable agriculture on the urban fringe - currently home to an assorted collection of skip rental sites, input-intensive golf courses and dumped rubbish - could yield job and training opportunities. The recreational needs of Londoners need not suffer either. The Ministry of Agriculture, Fisheries and Food (MAFF) is constantly urging rural farms to 'diversify' by providing bed and breakfast accommodation, farm walks, shops, educational activities and so forth. Urban fringe farms could combine sustainable food production with educational and tourism opportunities, all of which could generate employment.

The very few county farms still under local authority control could pioneer such initiatives. Devon County Council has recently begun to encourage county farm tenants to convert to organic production. So far it has re-let one county farm to a tenant committed to organic growing and there are a number of existing tenants who have expressed an interest in converting. To date the Council's role has been fairly low-key but there may be opportunities in the future for Councils to offer rebates to farmers to tide them over the conversion period. Land lords can in fact benefit from their organic tenants; some German water companies are paying farmers to farm the land they own organically, so reducing the water clean-up costs incurred by chemical run off from intensively farmed land.[19]

MAFF is currently trialling a new project in the Bodmin area of Cornwall which combines rural employment with 'green' farming and income-generating activities, such as environmentally friendly food processing and marketing.[20] This could provide a useful model for promoting urban agriculture.

Honey

In addition to horticulture, there could also be room for semi-commercial apiculture. Although not feasible on a large scale - four hundred hives are a minimum in order to be commercially viable and London simply does not have the available land - there could be a role for small-scale bee-keeping in London as part of a 'portfolio' of food-related income generating activities.

A thriving bee micro-industry could in fact achieve a real integration of environmental, social and commercial objectives. As with all forms of urban agriculture, London will never be a major producer, but it could become a show case for innovation and best practice, which in turn could catalyse the revival of our flagging national bee and honey industry ***(see Urban agriculture)***. So far beekeeping has been popular mainly among higher income, elderly, white men[22] and very few younger people or people from ethnic minority groups have taken up the pursuit, apart from a few bee-keepers of African-Caribbean origin in London. There is no reason though why this satisfying, challenging activity could not be promoted among London's marginalised communities.

Mushrooms

Mushrooms also make good use of limited space and some varieties can command high prices in the market place. The shiitake mushroom industry in the US is worth $6.4 million, with production doubling every 5 years. In the UK the gourmet mushroom industry is embryonic, with over 99% of demand being met by imports from Europe and the far-East.[24] There are for instance only 12 shiitake mushroom growers in Scotland, producing around 500lb annually. Added to this is a trade in wild collected mushrooms which, bizarrely, are exported to Paris markets and then re-imported to supply restaurants in Scotland.[25]

A pilot shiitake mushroom project is currently underway in one of Glasgow's most deprived areas,[26] its objectives being to generate local jobs and link with other local food initiatives, such as an existing food co-op and allotment (which at present actually supplies the co-op with some of its fresh produce). Although still in its first year, the shiitake pilot project is progressing well. It aims to be financially viable by the end of the first five years, able to support up to three jobs and with annual mushroom production reaching 17,000 lb.[27]

Mushroom growing can have environmental benefits too. The fungi can be grown on wood offsets (oak is best) which are too small for construction and other industries. Once the logs are spent, they can be used to heat polytunnels, chipped as garden mulch or used for growing other mushroom types, so helping close the ecological loop. Shiitake mushroom cultivation could form an integral part of sustainable forestry schemes, such as London's community forests at Watling Chase and Thames Chase.

Fish

Acquaculture is another possibility. Fish eating tends to provoke opposing reactions from the environmental and health lobbies. While the severe ecological crisis caused by overfishing suggests we should eat less fish, nutritionists are constantly praising its various dietary attributes and urging us to eat more. Fish farming , on the face of it, offers a solution. But there are environmental concerns here too - pesticide applications to the farmed fish have often made their way into the water supply. Many fish farmers are starting to tackle the problem and the Scottish Salmon Growers Association is now rearing fish using fewer pesticide inputs, which it markets under the Tartan Quality Mark.[28] There is even a fish farm in Wales (Graig Farm Organics) which now rears and markets organic farmed salmon.

Acquaculture is already a feature of urban life overseas, notably in Calcutta where the industry has been thriving for 60 years. There, fish production manages to kill several birds (so to speak) with one stone; each year the city's 4000 hectares of waste fed ponds collectively produce around 10,000 tonnes of fish,[29] or 10% of the fish that the city consumes (the area was formerly twice as large but many ponds have been lost to urban development). In so doing, they provide employment for around 4,000 families and also purify the city's sewage. Water hyacinths, which are grown in the fish ponds, decontaminate the sewage by absorbing heavy metals and oxygenating the water, resulting in clean water and fish safe to eat. Ducks are also kept to control weed growth and the meat and eggs are sold. Research also suggests[30] that 50% of the fish consumed in China comes from waste-fed ponds - over 90% in some cities.

However, UK conditions are different. Tropical fish tend to be herbivorous, and tolerate water with low oxygen and high quantities of organic matter, which means they can be reared on the phytoplankton breeding in sewage; carnivorous temperate climate species would not survive in such conditions. Ownership and water-use rights complicate the issue.

Nevertheless, medieval monasteries often had carp ponds which supplied monks with food. The River Thames and London's numerous reservoirs could provide the basis for small income-supplementing schemes, in combination with educational and research activities; particularly since the river's water quality is improving, with fish such as sole, bass, smelt and eels returning to the heart of London.[31] These would make practical use of

a key London attraction, showing that the Thames could once again become a living, working river, rather than simply a bland conveyor belt for sightseeing. The Government is already working to promote the use of the Thames through its Thames 2000 initiative. Moreover, fishing is a very popular sport - the banks of London's reservoirs are constantly lined with hopefuls and their sandwiches, while Finsbury Park is even graced with a 'Bag it with Magit' maggot vending machine. Small scale sustainable acquaculture could build upon this foundation and put fishes on lines.

Processing and marketing

Primary production could catalyse the establishment of small scale industries, manufacturing a range of processed foods such as dried fruit and vegetables, preserves and wine, while at the same time generating inputs for a composting industry. Small growers often find themselves faced with a glut of produce at certain times of the year, which they cannot eat themselves and which would not be able to compete on an already over-supplied market. One solution is to process the food into jams, jellies, chutneys, pickles, cordials, flavoured oils and dried food stuffs as, for instance the SHARE Community ***(see case study)*** and countless home gardeners are already doing. Even wine production may be possible on a very small scale - one gardener in Islington produces numerous bottles each year from his one vine and a site in Bromley is home to a number of enthusiastic vine growers. London already has a number of small food enterprises; the samosa in the chill-cabinet at the local newsagent's may have been produced by a large company, but it might equally have been made locally by the newsagent.

In addition, London's rich diversity of community events - from the small scale estate 'fun day' to the now internationally famous Notting Hill Carnival - demonstrate the wealth of culinary talent among London's communities; stalls selling home-cooked food are usually the star attraction for hungry crowds. While festivals are only occasional events, there is room for building upon the talent and entrepreneurial spirit that they elicit, and one possibility might be to link people who cook with people who grow, so establishing more permanent food processing and catering enterprises. This

Funding for food growing

There are a range of new institutions which provide loans to the 'third sector' including community businesses, voluntary organisations and other ventures with social objectives. These include the Charities Aid Foundation's Community Finance fund, Business in the Community's Local Investment Fund and the Triodos Bank which provides loans to organic farmers. The Industrial Common Ownership Fund supports the development of co-operatives. Credit unions ***(See Glossary)*** can also provide loans for small businesses.

approach might also bring more of those people who have traditionally been excluded from it, into the environmental debate. Although many from ethnic minority communities cannot afford to be 'green', faced as they are with immediately pressing concerns such as unemployment, poor housing conditions or racism,[32] they have often maintained their food and cooking traditions. Building upon what are often, in effect, already sustainable activities might be more successful than more traditional environmental approaches.

There are already examples from outside London of projects which link food production with food processing or catering. The Chase Neighbourhood Centre in Nottingham is one example. This self-build, turf-roofed community centre operates a volunteer-run café, offering low cost breakfasts and lunches to the local community and using the fresh produce from the Centre's allotment. Participants at Restore, a therapeutic horticultural project in Oxford, sell their allotment-grown produce, both fresh and in processed form, to the local community. The Proper Job Co-op in Devon runs a community composting scheme, two allotments and a café/shop, thus creating an ecologically efficient closed-loop ***(see case study)***. It is also developing a social auditing system which will enable it to measure the value of its work more accurately.

Farmers' markets

Farmers' markets were originally developed in the 1970s in the US. The philosophy is simple; the produce grown at the market must have come from within a certain radius of that market and the vendor must be either the grower, or a relative or employee of the grower. This ensures that middlemen are cut out and that the food is both local and seasonal. Farmers' markets in the States have proved tremendously successful, doubling in number from 1,200 in 1980 to 2,400 in 1996.[33] Although it has been difficult to establish them in deprived areas and, as a rule, they cater for a wealthier, older customer,[34] there are successful examples which sell subsidised produce to low income groups. The markets do not just provide a source of quality produce but have also contributed to inner city regeneration. For example, since the Marin County farmers' market in California was established, local business sales have increased by 38% and the market now attracts over 5,000 customers a week.[35]

1997 saw the launch of the first UK farmers' market in Bath. This is now well established, and the idea has spread to other parts of the country, including Bristol, Huddersfield and Kirklees. London's first farmers' market will be launched in Islington in June 1999 and, once established, it aims to run once a week.

The UK experience suggests that while producers certainly benefit from coming to these markets, profit is not their main motive. Calculations based on the first few Bath farmers' markets indicates that a small producer,

selling around £300 of produce, makes only £1.87 an hour, after the costs of production, transport and so on are deducted. This would dip further to a meagre 8p an hour if the costs of market promotion, the stall and other expenses were included; in Bath the local authority has borne these costs. Nevertheless some growers found that personal contact with their customers and improved public profile were gains which eventually yielded financial benefits. For instance, one cheese producer found that since the farmers' market, sales from his regular Bath retail outlets have grown.[36]

The key to a successful farmers' market is a good mix of producers, organic and non organic, large and small, selling not only fruit and vegetables but other produce, such as cheese, mushrooms, wine and so on.[37] Large suppliers who can ensure more regularity of supply in effect 'subsidise' smaller growers who may only be able to attend as and when they have enough to sell. This flexibility would be well suited to small scale urban food growers. In this way the consumer can rely on the market's continued existence, larger suppliers can improve their public profile, and smaller growers are given the opportunity to develop in a supportive environment.

In addition to establishing separate farmers' markets, there is also potential for setting aside areas in established street or covered markets for producer-only stalls. [38]

Political support and funding is vital - the success of farmers' markets in the USA has been due to the large number of smallholders in production and the support they receive from the public and from government subsidised agricultural extension services. One example is the ***New Farmers New Markets Programme*** ***(see case study)***.

The Countryside Agency (formerly the Countryside Commission) is currently running a Countryside Products scheme, to stimulate employment in sustainably produced foods and other products, such as crafts and charcoal. In the South East, the Agency is working in Kent, Sussex and Surrey county councils on a 'Taste of the South East' initiative, promoting and marketing locally produced foods through farmers' markets and appropriate labelling.[39] While this model, still in its early stages, does not operate in London, there could be scope for doing so in the future.

Women's Institute markets

Established in 1919, there are now over 500 Women's Institute Country Markets in the UK, selling a range of home produced dairy foods, fruit and vegetables, preserves, cakes and craft products to the public. The UK's own version of farmers' markets, these co-operatives are self financing and anyone (not just WI members, and not just women) with 5p to invest can become a shareholder and producer. Markets are usually held for a few hours once a week in towns and cities as well as in rural areas. Increasingly, WI markets are forming links with farmers' markets, where these exist.

Anyone who has ever visited a WI market knows to arrive very promptly because the produce disappears almost instantly. Although there are two WI markets in London, the food on sale (jams, cakes, biscuits and, at the Putney market, curries too) does not use local ingredients. Nevertheless, given its commitment to local Agenda 21, the WI could play an important role in promoting local production in London and elsewhere.

Local Exchange Trading Schemes

There is room for building upon existing food related LETS activity. Government's report on Social Exclusion[40] has already mentioned the potential role of LETS in urban regeneration. A link with food could also fit in well with its aim of improving access to low cost healthy food.

Box schemes

Urban food growing fits well with the box scheme model ***(See Glossary)*** because, as customers pay for what produce is available rather than for what they might specifically want, the scheme can accommodate seasonal supplies of produce.

However, the idea of eating city-grown produce can worry some customers who subscribe to such schemes because they can be sure that the produce is organic - either officially registered as such or known to be organic because the consumers trust the grower supplying them. Some customers may feel that urban grown organic food is a contradiction in terms. This is not necessarily the case ***(see Health and Sustainable land use)***. To reassure its members, however, Growing Communities will not sell the Hackney grown produce through the box scheme until it has achieved certified organic status, even though the preliminary test results show the produce grown to be free from contamination ***(see case study)***. While people's concerns should be taken seriously, it is important that community food growing schemes also emphasise the other environmental and health benefits (such as seasonality, freshness and reduced food miles) of local production.

Public institutions

Local authorities are increasingly aware of their environmental responsibilities - it is predicted that nearly 90% of councils will have prepared a Local Agenda 21 strategy by 2000.[41] However, somewhat fewer have examined the impact of their purchasing decisions upon the environment. Sourcing food locally for catering operations is one practical way for local authorities, health authorities and other public institutions to reduce the environmental impact of food transportation and support local businesses. The new "best value" purchasing regime for local authorities could provide an opportunity for developing local food links. According to the Provisional Principles of June 1997,[42] a best value framework will

require 'a corporate view of what an authority wants to achieve and how it performs, measured against key indicators and the aspirations of the local community.' In other words, local authorities must also consider non-financial considerations when buying in goods and services. Thus, while is no specific ***requirement*** that local authorities' purchasing decisions should promote environmental sustainability, there is ***provision*** for them to do so. The Improvement and Development Agency (formerly the Local Government Management Board) and Local Government Association provide useful guidance on how to achieve this.[43]

At the same time, local authorities could also promote their local producers through 'buy local' campaigns. These are gaining in popularity around the world; the State of British Columbia in Canada has a 'Buy BC' programme to encourage people to buy locally grown food and other products while, closer to home, the town of Leominster operates a 'Loyal to Leominster' loyalty card scheme where participating businesses offer discounts to card holders.

Ethical criteria are already creeping into some Council's purchasing specifications; Nottingham, Norwich and Bristol City Councils, as well as the House of Commons all use Fairtrade coffee in their catering. The House of Commons has also signed up to the National Farmers' Union's ***Proud to Serve British campaign*** ***(see Environment)***, has an organic option on its menu and avoids the use of genetically modified foods wherever possible. [44]

Manger-Bio

Reports from the French Health Ministry have shown that more and more people are now snacking throughout the day and that the workplace and school often provides them with their only balanced meal. To make that meal the best possible quality, one local authority in the Gard region of Northern France and the EU together launched 'Manger-Bio', a scheme linking local producers with consumers. Manger-Bio brings together[25] local organic farmers who, until now, were exporting 70% of their produce, to supply local schools and workplace canteens with organic fruit and vegetables. Meals are more expensive, working out at about 10-20p above the non-organic cost, but the scheme has been very successful. Starting in 1996, it delivered 45-50,000 school meals in 1997 (figures are not yet available for 1998). Manger-Bio has also recently been contacted by a university canteen that wants them to supply 6,000 meals a week. Now run by one of the participating farmers, Manger-Bio has stimulated further local trade by sourcing organic dry goods such as rice and pasta, through Bio Co-op, a federation of independent organic consumer co-ops. In addition, Manger-Bio organises visits by school children and canteen staff to the farms and holds a weekly organic meal for parents to encourage them to pay more attention to their children's diets.

Source: Clive Peckham, East Anglia Food Link

The House of Commons is fortunate because it can afford to use more expensive suppliers. Local authorities, schools and other public institutions have tighter financial constraints. Nevertheless schools and workplace canteens in the Gard region of Northern France are successfully buying in locally grown and supplied organic food ***(see "Manger-Bio")***. Building on this example, East Anglia Food Link is working with the County Council and two NHS Trusts to develop a co-op supplying food to hospitals and care homes with in-conversion-to-organic produce. This will have the added benefit of supporting farmers through what is often a difficult time.

Allotment sites

The regulations regarding the sale of food from allotment sites are ambiguous. Some local authorities allow sales on a non-profit basis to the local community. Government is generally well disposed to this approach, broadly concurring with the Environment, Transport and Regional Affairs Committee report[45] recommendation that decisions regarding the sale of surplus produce from allotment sites should be made on a site-by-site basis and pointing out that 'present legislation already enables some limited commercial activity to take place on allotments.'[46] However, 'primary legislation would be required to allow commercial use to be greater than an ancillary use.'[47]

Given a sympathetic council there could therefore be potential for establishing weekly produce sales, perhaps along the lines of a WI Country Market. The profits could either go directly to the growers or to the allotment association, which could use the income to improve facilities on site. By raising the site's profile and even helping to create better on-site facilities, regular trading activity might also encourage more people to take on allotments. Busy, well used sites also tend to see less vandalism and theft than underused, neglected ones, meaning lower maintenance costs.

Commercial retailers

Supermarkets and large retail outlets demand regularity of supply and (cosmetic) uniformity of quality. This would be very difficult for most local growers and producers to deliver and as the financial returns for such small quantities would be minimal, it would not really be worth their while.

Nevertheless there is potential for less commercial and more imaginative links between local suppliers and the large retailers. Local food growers could, for instance, supply herbs for luxury sandwiches or take-away salad boxes. These 'local-to-London' products could be vigorously promoted as such, thereby attracting the growing numbers of people interested in organic and sustainably produced food - around 37% of the population can now be defined as 'ethicals'[48] and these tend to be professionals who buy the more expensive lunch time take-away foods on offer. In addition, supermarkets could set out locally grown food on separate stands with

accompanying leaflets and perhaps an article in the magazines which so many of them now publish. Although local purchasing will not be the least-cost option for large retailers, there is now a raft of evidence to show that companies operating in a responsible way, for instance by nurturing small producers, are also more commercially successful.[49] While there is little understanding of why this relationship exists or the direction of it (are more responsible companies more successful or vice versa?), the positive association nevertheless exists.

Composting organic and sewage waste

Composting activities could yield jobs, avoid landfill costs, meet government waste targets and benefit the environment ***(see Environment)***. Many local authorities, including Kensington and Chelsea and Ealing, already sell low-cost compost bins to local householders and run promotional campaigns to encourage take-up. A composting strategy for London which included the distribution of home composters, wheeled bins and collection costs as well as promotional activity and the charges of compost operators would cost local authorities an estimated £40 million a year.[50] Offset against this is the £55 million a year saved on collection and disposal costs[51] meaning a net benefit to local authorities of £15 million annually. Added to these are the environmental savings such as reduced methane emissions, which will have to be costed into the economy sooner or later.[52]

It has also been estimated that the composted value of London's organic waste could reach as much as £6.1 million in sales alone[53] and generate 350 full time equivalent jobs. There could be additional jobs in related activities including compost bin and equipment manufacturing, promotion and education, and training.

Standards

However, it is essential to ensure that the compost is of saleable and consistent quality and many EC countries have, as a result, developed composting standards.[54] In the UK though, operators have often processed 'mixed household waste' - in other words, the entire contents of the dustbin. This produced a heavily contaminated compost that they were unable to sell and so many operators were forced to close down. These failures have put others off in turn.[55] The Environment Agency and the Composting Association are, however, working to develop standards for the UK and their recommendations on how to do this will be considered in the context of a forthcoming White Paper on waste.

Promotion

Proper promotion both to hobby and commercial growers is also essential in order to develop markets. Many leisure gardeners (particularly non-food growers) do not use compost, relying on artifical fertilisers and other inputs instead, as do many farmers in and around London's urban fringe. In addition, it will be important to change our skewed tax system. As it stands, the market price of collected waste does not reflect its real value.[56]

A comprehensive approach to compost development might include developing a compost brand for London, and promoting compost to the public through DIY and garden centres and to the commercial farming and amenity horticulture sector. It could also entail the establishment of food growing activities both to receive waste for composting, and to provide a ready market for compost. A third element might be to work with agencies delivering the New Deal for Employment to provide training places in horticultural and composting projects.

Sewage

Sewage might be another way of generating both food and income. Before Heathrow airport was developed in 1944, the Perry Oaks area was surrounded by farmers who grew fruit and vegetables for London. With Heathrow importing air-freighted produce from around the world, the area still deals in food but there is potential for a more sustainable approach. Perry Oaks is also home to Thames Water's water extraction plant, where it takes the water from London's sewage. Sewage, with proper treatment could provide a valuable growing medium for local farmers.

In a small way this already happens. Thames Water produces and sells more than 30% of the anaerobically treated sewage used in UK agriculture,[57] generating enough methane in the process to supply power to 6,000 homes.[58] Anaerobic treatment, however, would appear to favour large farmers ***(see Environment)*** and raises health concerns. Aerobically treated and composted sewage, on the other hand, is far safer than anaerobically digested sludge and does not require expensive technology and stringent health controls, making it potentially more accessible to small scale farmers. Thames Water currently produces a very small quantity of sewage-based compost, soil improvers, and peat alternatives which it markets through garden centres. It is vital, though, to market compost to the agricultural and public sector for it to have any commercial (or environmental) impact. Lack of awareness and an image problem are major hindrances which need overcoming and the Compost Development Group has made a number of recommendations for doing so. These range from the issuing of MAFF guidance to commercial farmers on applying compost, to media coverage, regional seminars and circulars to local authorities.[59]

Ancillary industries

In addition to the economic gains from food production, processing, marketing and composting, urban food growing could indirectly catalyse the development of a number of other enterprises. For instance, in some parts of Germany,[60] new industrial buildings must have green roofs by law while in Swiss cities, regulations now require new buildings to relocate the area of green space which they develop onto the rooftop. Even existing buildings, some hundreds of years old, must convert 20% of their roof space to pasture.[61] These regulations have spawned a whole new industry in lightweight growing media, filter cloths, roofing membranes, plant stock and how-to books and kits. Nursery designers, consultants, and contractors have been forced to relearn and re-adjust in order to compete in the new market, with the result that they now have more and varied work.[62]

Ultimately, a food growing strategy could span outer and inner London, the formal, informal and household economies, and encompass primary production as well as processing, marketing and a range of ancillary industries, including composting. This could enable London to establish itself as a 'seed bed,' or centre for horticultural and food excellence; a blueprint for other towns and cities to adopt.

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5) Health

A cucumber should be well sliced, and dressed with pepper and vinegar, and then thrown out, as good for nothing.

Samuel Johnson

Summary

There is a great deal of anecdotal evidence that growing food in cities can be good for your dietary, physical and mental health. It is difficult, but not impossible, to measure these health benefits more rigorously though it has not been done, to our knowledge, in this country. "Hard" and "soft" data show that growers tend to eat more fruit and vegetables, be more active, and to report a better quality of life than non-growers. This holistic approach lends itself well to Government's policy of improving public health, and there is much scope - currently under-exploited - to incorporate food growing into Health Action Zones, Health Improvement Programmes and Healthy Living Centres, as well as into settings such as healthy schools and healthy workplaces.

Key facts

- We should eat at least five portions of fruit and vegetables every day to improve our health. Average UK consumption is around three portions, but food growers tend to eat more than average.
- Preliminary findings from research into conservation work as a "green gym" show that participants' strength improves
- People with mental health problems regularly report that growing food and other plants significantly improves their quality of life

The current situation

The health benefits of food growing are difficult to quantify. There has been little structured evaluation of its impact, and people's assessments of changes in their diet, physical activity levels and mental health can be highly subjective. Many people working on food growing projects indicate - albeit anecdotally - that food growing yields health benefits. These benefits may not always be very direct, particularly in the case of ***community*** gardening projects (which is not to say that they do not exist). Project participants may only visit the plot infrequently, and often very little produce is actually grown - a handful of spinach twice a year hardly constitutes a major contribution to fruit and vegetable intakes.

However, a number of mores structured evaluations of projects have shown benefits. One survey[1] suggest that allotment growers are convinced that gardening improves their health, with two thirds of respondents highlighting fresh produce and exercise as key benefits. Research in the US ***(see Philadelphia Urban Gardening Project case study)*** suggests that food gardeners do indeed consume more fresh produce, particularly dark green leafy vegetables that are often recommended for their nutritional value, as well as fewer sweets and sweet drinks than their non gardening controls. Gardeners were also less likely to eat dairy products and more likely to have occasional meat-less meals as well as enjoying better mental and physical health than non-gardeners.

The British Trust for Conservation Volunteers is piloting a 'green gym' initiative which monitors the impact of structured conservation activities on participants' calorie expenditure, blood pressure and mental health. Although these activities are not specifically food related, the work involved - digging, weeding and so forth – is certainly relevant to food growing. The preliminary findings indicate that participants' strength has certainly improved and that, if undertaken more regularly, the cardiovascular benefits would also be significant.

The Gardening for Health project in Bradford ***(see case study)***, has monitored the scheme's impact upon the Bangladeshi participants and concluded that there have been significant and direct benefits. The communal allotment has added to the fresh vegetables already in their diet, particularly since some participants have now started to grow food in their gardens as well. The women are also much fitter. A year ago, many of them struggled with even half an hour's work on the plot but now the two hour sessions four times a week are not enough. They are also walking the mile each way to the plot whereas they were originally coming by minibus.

But perhaps the main health benefits for most participants have been psychological. A year ago, the women would not have dared to walk down the street alone to the site. Now they do this regularly. The allotment project has also given them the chance to get to know people outside the confines of the family and has encouraged more co-operative, creative ways of working among women who have traditionally been hesitant to act on their own initiative.

The Gardening for Health project shows how closely mental and physical benefits are connected. Indeed research indicates that social isolation is strongly associated with poor physical health, including increased mortality risk and delayed recovery from disease - lack of social support can increase premature deaths from cardiovascular disease by around 25-35 percent.[2] Conversely, studies also suggest that taking exercise can improve people's mental health.[3] Food growing activities have these potential gains built into them from the start.

Horticulture, albeit not necessarily of the food growing variety, is in fact fast becoming a mainstream form of therapy. The charity Thrive (formerly Horticultural Therapy) lists 136 therapeutic gardening projects in London alone, located on hospital grounds, city farms, community gardens and in parks - there is even one in a cemetery. One prime time gardening programme[4] featured interviews with a prison inmate, an ex-alcoholic and others all emphasising the important part gardening had played in helping them with their difficulties.

The Natural Growth project in North London, ***(see case study)*** works with asylum seekers and victims of torture. The co-ordinator, who has been working there for many years, notes 'clients realise that what they do outside, in what they grow, can heal what has failed and been destroyed inside them. It's also a way to remind them there is an earth here, that it is the same as the earth they come from, and that they can plant in it many of the same things they grew back in their homelands.'[5]

One Iraqi doctor who comes to the project comments of his plot: 'I call it my little piece of paradise. I lost everything - my country, my job in the hospital…When you work with fruit and vegetables you feel very glad, very calm. You feel you have done something. It is better than medicine or tablets.'[6]

Another project in the north-west outer borough of Hillingdon works with terminally and chronically ill clients who not only receive help with gardening but who also give help to, or work in tandem with others. Although food growing is not specifically part of the project's remit, around a third of the participants, especially those of Asian origin, do in fact grow food. The number of people participating has grown rapidly in a year, from 60 to around 250.[7]

Healing Gardens has helped people overcome the crippling social isolation and depression that severe illness can bring, and contributed to a real sense of empowerment. One woman, a long standing sufferer of mental and physical abuse, once too anxious to speak or even go outside, is now able to comment: 'I'm delighted with the garden. I'm going to try and get a lawnmower with the help of my drop-in club and then I can carry on on my own.' The project co-ordinator also notes that over the project's life, 'the distinction between helpers and recipients has blurred. People who have been helped now enjoy helping others. This has enabled Healing Gardens to become a network of self-supporting gardeners who exchange skills and enthusiasm.' For instance a visually impaired woman has now teamed up with a sufferer from severe rheumatoid arthritis; together they have created an effective team by exchanging their respective skills and abilities.[8]

The co-ordinator of the Hoxton Trust in Hackney, whose clients include a number of people with mental health problems, often notes significant

transformations in people who attend regularly, particularly in their dress, personal hygiene and general behaviour. She does however warn that ongoing support is vital - as and when they leave the scheme or, through lack of money, the scheme leaves them, participants quickly relapse. As with so many community initiatives, the continuity provided by adequate funding and paid staff appears to be vital. When this is not forthcoming, schemes can collapse ***(see Community development)***.

It is also important to note that community-based projects are not the only route to mental health. Some people find that it is the solitude to be found on the allotment or in the garden which is so essential for their mental well-being. For them, gardening is a chance to get away from other people and from the stresses of every day life ***(see Community development)***.[9]

The perceived health risks of eating urban produce can be a barrier to food growing and indeed the contamination question is often the first people ask about urban agriculture. The health risks posed by urban soil contamination should not be underestimated and there is no doubt that some parts of London are far too contaminated for food growing ***(see Sustainable land use)***. However, there has as yet been little UK research into the health effects of eating urban and/or contaminated produce but it is possible that some of these fears may be exaggerated. One Ministry of Agriculture, Food and Fisheries (MAFF) study tested levels of 13 potential contaminants in vegetables which were grown on allotments near identified sources of heavy metal pollution. The conclusion was that, while higher than for those vegetables not grown in contaminated areas, 'the dietary intakes of these elements … are not a cause for concern.'[10]

It should also be noted that many purchased foods contain quantities of heavy metals. Potatoes, bread and various cereals for instance, make the greatest dietary contribution to our cadmium intakes while beverages and milk[11] are our main source of lead. Furthermore, balanced against the potential dangers of eating food grown in urban areas, are the results of MAFF tests which show that all is not well - or safe - with the vegetables on sale in supermarkets and shops around the country. Studies continue to show that samples of fruits and vegetables, such as lettuce and spinach, contain nitrate levels which exceeded allowed limits.[12] The official government advice that we should peel, top and tail our carrots, for instance, still stands because of concerns about organophosphate residues[13].

The potential

Healthy neighbourhoods

Healthy Neighbourhoods form just one element of Government's 'Healthy Settings' initiative, which adopts an area-based approach to health promotion. However the King's Fund recommends[14] that 'Healthy neighbourhoods should not be seen as one of a number of settings, but as the cohesive force which binds other settings together. Every school and workplace is located within a neighbourhood... neighbourhoods form an overarching setting which has the potential to unify the ***Our Healthier Nation*** strategy, making it truly nation-wide.'

Healthy Neighbourhood initiatives are expected to work towards the targets set out in ***Our Healthier Nation***. These include commitments to reduce deaths from heart related illnesses by one third, from cancers by a fifth and from suicides by a sixth (from a 1996 baseline) by 2010.[15] Strategies to promote healthier diets, more physical activity and better mental health are key to achieving them and Government has recognised the contribution of community based schemes such as food co-operatives in so doing. Food growing (perhaps to supply food coops) could be promoted as a logical 'next step' particularly since Government has already acknowledged the value of allotment gardening to health.[16]

Government has launched a number of schemes which could help create Healthy Neighbourhoods. Health Improvement Programmes and Health Action Zones are key here ***(See Glossary)***. By bringing together health professionals, the local authority, communities and employers to develop local strategies they have the capacity to promote health in its widest - social, economic and environmental - sense.

There are four HAZs in London; in Brent, in Camden and Islington, in Lambeth, Southwark and Lewisham, and in East London and the City. The East London and the City Health Authority's HAZ strategy already includes food growing in its cardiovascular disease prevention programme, as part of its aim to increase access to low cost healthy foods in deprived neighbourhoods (see Community development). There are, promisingly, a number of local food initiatives for the HAZ to build upon. In Tower Hamlets these include food co-operatives developed by the Health Strategy Group, a food growing project at Dame Colet House which plans to grow food to supply its food co-op, food growing activities for Bangladeshi women at Spitalfields City Farm ***(see Community development)*** and a number of community gardens ***(see Bringing it all together)***. In Hackney there are at least two horticultural therapy projects - the St Mary's Garden and Gardening for Growth initiatives - as well as a city farm.

The Health Authority will also be spending £50,000 of HAZ money on developing ***Exercise on Prescription*** schemes, where GPs 'prescribe' physical activity, such as dance classes, to patients in Tower Hamlets. There are already two such projects in Tower Hamlets. Although the focus will be on leisure centre activities, structured gardening, perhaps along the lines of the BTCV's Green Gym programme (see above) could be an effective prescription for fitness. The GP at the Bromley by Bow Centre in Tower Hamlets (which has its own community allotment) already suggests allotment gardening to patients in need of exercise. So far only two people have taken up the idea but this is not surprising. People with poor health, who are most likely to benefit from an allotment, are also more likely to see their ill health as a barrier. Simply suggesting that they take up allotment gardening can be daunting, in contrast with the careful programme of activities which an exercise class can offer and which can help build people's confidence and ability. Hence the need for a similarly supportive framework for food growing.

Even outside HAZs local authorities and health authorities can see the benefits of working together to improve health, including on food growing. In Kensington and Chelsea, for example, the health authority recently offered a grant to the local authority environmental health department for an estate-based food growing initiative.

Another important contribution to the Healthy Neighbourhoods strategy is the Healthy Living Centre. While the application guidance is extremely broad, it lists community gardens, food co-operatives, cafés and environmental initiatives as potentially fundable activities.[17] The Bromley by Bow Centre, which has a food growing project, has already been featured in ***Our Healthier Nation*** as an example of a 'Healthy Living Centre.' Food growing could fit very well into this holistic concept of health.

Healthy schools

Food is an important element of school life. Its quality can make a major impact on children's health particularly as for some the school dinner is their main meal of the day.[18] The Acheson Inquiry's report highlights its importance and recommends that one way of improving young people's diets might be for schools to provide free fruit and to develop children's cookery skills.[19] A school food plot or links with a local community orchard or allotment could make a contribution towards achieving this.

Government states that 'education is one of the most important ways of giving children and young people a healthy start in life. This is not just about learning how the body works and how behaviour can affect health. It is also about whether we are able to equip ourselves with the

skills and knowledge to make the most of the opportunities life presents.' To promote a healthier school environment it has launched a £2 million Healthy Schools Initiative, a major strand of which is the National Healthy Schools Scheme. This seeks to promote, among other things, healthy eating, physical activity and emotional well-being. Managed by the Health Education Authority, it is being piloted in eight local authority areas, each of which receive £150,000 to address a range of health issues in schools, including healthy eating and physical activity. There is only one pilot scheme in London (in Hounslow, where the focus is on drug and sex education) but as and when the scheme is launched nationally, there could be room for incorporating food growing activities into schools' health promotion work.

Another promising strand of the National Healthy Schools Initiative is Cooking for Kids, a scheme involving children in cooking activities and highlighting the importance of healthy eating. During the 1999 Spring half-term, 120 schools took part in cooking activities throughout the country, led by a number of celebrity chefs. Many chefs, including Anthony Worrall-Thompson, one of the participating chefs, are already keen gardeners ***(see London: an introduction)***. One possibility for the future might be to incorporate a 'chefs in school grounds' element into the scheme.

As part of commitment to improving the health of young people, the East London and the City Health Authority (ELCHA) aims to establish healthy school schemes in at least 30% of schools in Newham, Hackney and Tower Hamlets.[20] Food growing activities could form part of healthy school schemes while at the same time linking in with the ELCHA's work on employment and healthy neighbourhoods.

Learning Through Landscapes, in partnership with other organisations, is currently looking to establish pilot healthy school grounds projects in schools in London. Food growing activities will be included in their plans.

Healthy workplaces

Our Healthier Nation suggests that employers can promote health at work by, among other things, taking measures to reduce stress, improving health and safety procedures and making healthy choices easy for staff. Food growing activities could help achieve these objectives.

Gardening activities, perhaps linking with existing projects and thus contributing to employee community involvement programmes ***(see Education and training)*** could provide an excellent form of stress relief and physical activity. Sourcing locally grown food for canteens -

and promoting it as such - could also contribute to healthy eating campaigns in the workplace while raising environmental awareness ***(see Environment)***. However, the aim of achieving a truly healthy workplace could go beyond measures to promote healthier practices at work. At its fullest it could be about a shift towards healthier kinds of work ***(see Economic development)***. The future Mayor will have to 'have regard to' the desirability of 'promoting improvements in the health of persons in Greater London' (Clause 33 (3) (d)) in all areas of its activity. This could, and should include promoting and developing more health enhancing economic activities.

Government's New Deal for Communities bidding guidance suggests that successful bids are likely to include an element of health promotion[21] while the Single Regeneration Budget bidding guidance[22] also mentions health opportunities and facilities as one possible output of SRB schemes. ELCHA will be working to incorporate explicit health targets into local regeneration initiatives as part of its Health Action Zone strategy. Added to this, ELCHA is setting up an Innovations fund[23] to support innovative regeneration and employment schemes that approach job creation and health promotion in tandem. Community food growing enterprises could further these objectives.

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Healing Gardens, Hillingdon
Jill Nicholas, Groundwork Thames Valley, Denham Court Drive, Denham, Uxbridge, Middlesex UB9 5PG tel: 01895 832662

Healing Gardens provides gardening information, advice, tools, supplies and volunteer support to chronically and terminally ill people, and people with disabilities in Hillingdon, Slough and South Buckinghamshire. Started in 1997 by Groundwork Thames Valley, Healing Gardens has a number of elements including:

- a garden design service enabling people to redesign and reshape their gardens
- a Volunteer Garden Squad which clears and adapts gardens through, for example, making pathways, creating water features and building fencing
- a telephone hotline for gardening advice
- a trailer supplying seeds, gardening supplies and specially adapted tools for people to borrow
- horticulture therapy at home
- NVQ level 1 training in amenity horticulture
- putting people in touch with social and health services and local voluntary organisations with whom the scheme has links
- regular group meetings and newsletters
- events such as picnics and wine and jam making sessions - with tips on anything from making pickled nasturtiums and oak leaf wine to finding the best damson bushes in Hillingdon
- Links with the local LETS, HiLETS.

People hear about the scheme through day centres, hospices and primary health care schemes. Within the first six months 60 people had joined, which has now grown to around 250. Funders include the Health Authority, the National Lottery Charities Board and the European Social Fund. Although food growing was not part of the original plan, many people have in fact started to grow food and now about a third do so, particularly those from Asian backgrounds.

The benefits to participants have been enormous. By the end of its first year, the Garden Design Service had developed 16 designs, the Garden Squad had worked on 61 gardens, and 120 people had benefited from horticultural therapy home visits. Many of the NVQ trainees have set up their own gardening businesses or taken up work with partner agencies, such as Age Concern. More important than hard figures though, are the social and therapeutic benefits; the scheme has helped severely isolated people to come together as part of an active gardening network. They have also been able to regain their confidence by developing and sharing their skills with others. There is no clear distinction between volunteer and beneficiary. Participants exchange seeds, plant, produce and gardening tips amongst themselves and give workshops - recent ones have included aromatherapy and no-dig gardening sessions. They also help each other out on their gardens - able bodied blind people, for instance, assist sighted wheelchair users and vice versa. Most of the Volunteer Garden Squad has a physical or learning disability themselves. One of them, a wheelchair user, has recently won a £3,500 BTCV Natural Pioneers Millennium Award, which he is spending on training which will enable him to become more fully involved in the running of the project.

Based on Healing Gardens' success, Groundwork has recently started a 'Health and Horticulture' project, a training scheme delivered through the Environmental Task Force for clients with drug or alcohol problems, physical or mental health problems, criminal records, homeless people and refugees.

Grazebrook Treescape Project
Grazebrook Primary School, Lordship Road, London N16 tel: 0181 802 4051

Grazebrook is typical of many 1960s built inner city primary schools with half its 400-odd pupils of minority ethnic origin and 24 different languages spoken. Some are refugees and asylum seekers. Around 30% receive free lunches.

In 1993 one concerned mother galvanised action to tackle the school's general state of dilapidation. This led to improvements first on the buildings, and then the school grounds. In July 1995 a Playground Week and an exhibition bringing children and parents together to develop ideas for improving the grounds prompted a fundraising drive. With money from the Shell Better Britain Campaign, BT, the Local Projects Fund, Learning Through Landscapes, Hackney Council and elsewhere - children even contributed their pocket money - a landscape architect was commissioned who worked with children, staff and parents on their ideas.

The grounds now have a 60 metre pollution shelter-belt, planter tubs, a pergola, 'gardens of the world' series of habitats, and compost making areas which make use of the school's kitchen scraps and leafmould donated by the local park. There is also a large vegetable plot where children grow vegetables from all over the world, making this a 'cross-cultural' garden. A Green Gang gardening project meets every Friday afternoon and a rota ensures that every class takes a turn on the garden. Staff are now increasingly using the garden for teaching. The school also hosts an annual Farmers' Market, open to the whole community, with tasting sessions, locally produced honey, workshops and more.

Parents are involved in all sorts of ways - by donating plants, helping with the work, and, more recently holding cookery classes in the school kitchens. With their Autumn 1998 glut of pumpkins, the children made a range of dishes including Syrian kibbeh, pumpkin bread and pumpkin and apple salad and pumpkin soup. The children served the food to around 100 parents at an enormously successful school social evening. The children also take vegetables home and then report back with great enthusiasm on how they have cooked them. For many children the project has introduced them for the first time to eating fresh produce. The children are enchanted by eating the food they have grown, with the reception classes eating radishes straight from the ground with tremendous relish.

With three head teachers passing through the school in two years, the school has been through difficult times. A recent, poor, OFSTED inspection sank morale further. However the OFSTED report singled out the gardening project for praise and urged the school to keep it going. The project has attracted a great deal of positive publicity. Recently pupils and parents involved in the project represented the school at aconference entitled, 'Gardens for the Third Millennium' in Assisi, Italy.

Most rewarding to the participants is the opportunity for 'real' work together. As one of the five year olds put it while raking leaves, 'Work is my favourite thing and my mum never let's me do it!'

The Natural Growth Project
Jenny Grut, Medical Foundation for the Care of Victims of Torture, 2 Langland Gardens, London NW3 6PY tel: 0171 435 4416

The Natural Growth project offers asylum seeker victims of torture a chance to rebuild their lives through therapeutic gardening. Managed and largely funded by the Medical Foundation for the Care of Victims of Torture, the project has been running since 1991when a doctor (also a permaculturalist) inspired the Foundation to use horticulture as a form of therapy. A trained psychotherapist now works with around 28 people and their families - some of whom have been coming for five or six years - at allotment sites in Ealing and Colindale. Although many receive one-to-one counselling much of the therapeutic work takes place on-site. While digging or weeding, participants may talk about deeper feelings, or family, health or money worries they may have. There are also group sessions where the group meets to discuss their feelings and experiences. There is also plenty of practical gardening advice because many participants, often from professional backgrounds, have never gardened before. Everything is grown organically.

Food is central to the Natural Growth project. Each week participants at one of the sites prepare and eat a meal together with Jenny. As well as the cooked food they bring from home, there is always a meat dish cooked on site. The Ealing site has a wood fired stove too, where participants bake bread two or three times a week. Once a year there is a harvest lunch, with everyone contributing produce from their plots. This is usually accompanied by music and singing and a little friendly horticultural rivalry between the two sites.

The Natural Growth project also has a garden at its premises in Hampstead. This provides a sheltered environment for particularly vulnerable people who cannot cope with working a public site. Here, they have created a remembrance garden, to help them come to terms with their traumatic past. They grow mainly flowers and herbs, but there is also a greenhouse where they cultivate lemons and pomegranates. In the summer there are weekly breadmaking sessions, and gardening activities for refugee children.

One participant's gardening work has prompted an interest in herbal medicine. This has led to the development of a herbal clinic, where Medical Foundation clients come to discuss their ailments and receive a diagnosis. Herbal teas, teas, creams and oils are prepared for them free of charge.

Part of the therapeutic process involves dealing with the misunderstandings and conflict that can occur between participants, who come from different cultures - and whose nations may even be at war with one another. They have also had to deal with opposition and suspicion from local allotment holders. Added to these obstacles, many participants live in bleak housing and often suffer from racial abuse. In contrast, the garden provides a medium through which they can work through their experiences and emotions. In the words of the coordinator, 'It can be important for people struggling in a new culture to realise that wherever they are in the world, the earth and its cycles remain constant. Failure is also a common theme; some people cry if their plants fail to thrive. The torture has reduced their confidence to such an extent that any failure is unbearable. Gardening can help to show that failure is part of the growth process of life itself.'

What is more, 'It's also a way to remind them there is an earth here, that it is the same as the earth they come from, and that they can plant in it many of the same things they grew back in their homelands.' For the participants the garden provides a base of security enabling them to build the confidence to go on to study or to work.

SHARE Horticulture Project
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SHARE stands for Self Help Association for Rehabilitation and Employment. Founded in 1970 and located on two sites - the grounds of Springfield Psychiatric Hospital and Altenburg Gardens in Battersea - SHARE provides training and rehabilitation for people with a range of mental disabilities including learning difficulties, substance abuse, paranoid schizophrenia, depression and anxiety, and for people with physical disabilities. SHARE's 'open house' policy means that it often takes on clients that are particultarly disruptive or difficult to train.

Since 1990 it has run a horticulture project which provides training in commercial horticulture. In addition, SHARE offers NVQs in catering, kitchen portering, information technology and office skills and administration. Trainees can also improve their literacy and numeracy skills.

At any one time, SHARE takes on around 50-60 clients of all ages and ethnic backgrounds. Between 10-18 opt for the horticultural training option where they learn to grow all manner of ornamental and food crops, including sweetcorn, peas, asparagus, cauliflowers, beetroot, onions and strawberries. There are also greenhouses where they grow aubergines, peppers, chillies, melons and cucumbers. Although not strictly organic, the project does not use pesticides. Some of the produce is used by the catering students, who cook it and make jams, chutneys, pickles and herb flavoured oils and vinegars. Many of them particularly enjoy learning in this way about the food they are cooking.

In 1998 four clients went on to gain employment as a result of their horticultural training at SHARE - the figure varies from year to year depending on the clients' level of disability. Equally important, participants benefit from their interactions with other people, and their confidence grows as their skills develop. Dress, behaviour and punctuality also improve dramatically. The horticultural trainees have, in addition, become more aware of environmental and health issues; the gardening has prompted discussions around, for instance the issue of genetic modification. Many ex-clients continue to keep in touch with the project after they have left while in-patients from the hospital also enjoy visiting the garden.

SHARE's stall at the CityHarvest festival was immensely popular, generating £87 clear profit. One happy customer pronounced the pickled beetroot the best she had ever tasted. Funding for SHARE is mainly contract-based from statutory agencies that fund trainee placements. The scheme is also funded through charitable trusts, individual donors and companies.

Growing Communities
Julie Brown, The Firestation, 61 Leswin Road, London N16 tel: 0171 923 0412

The idea for Growing Communities, as with so many projects, grew out of the vision and commitment of one person. Having campaigned on national environmental issues, Julie Brown felt it was time to start 'acting local.' Vegetables seemed to be a good place to start. In 1994, Julie joined forces with a couple of friends and started a box scheme, buying produce from an organic farm. At the time, box schemes were in their infancy,so unloading vegetables at 6am 'really felt very subversive'. Right from the start, though, Julie wanted the scheme to be about more than supplying vegetables. She had in mind a growing community of people engaged in creating positive change through food.

In 1997 Growing Communities was officially launched as a community supported agriculture scheme. Since then it has grown to supply vegetables to around 100 households, who collect their vegetables from four or five pick up points in North London - usually peoples' houses. The weekly bag usually contains a mixture of seasonal vegetables as well as eggs and, on occasion, fruit, a loaf of bread, nuts or organic fruit juice. A fruit bag is currently being developed and there are also hopes to include fair trade products in the future.

Growing Communities is developing its own food growing activities in a bid to become as sustainable as possible. A small demonstration site in Clissold Park has been producing a large range of vegetables, and the bigger Oaktree site in Stamford Hill was transformed in 1998 from a weedy dump to a flourishing vegetable garden with raised beds, art works and a barbecue area. There are plans to develop a plot at Springfield Park near Hackney Marshes in 1999, and all these areas are leased for nominal sums. Growing Communities employs a grower,helped by volunteers, some of whom are working towards a NVQ in horticulture, as well as members who join in at the regular weekend workdays. Growing Communities has also helped out at local conservation sites, often combining the hard work with food, drink and sing alongs. Occasionally, non-members come and lend a hand too. One elderly woman who stopped for a tour and a lengthy chat with the Growing Communities grower at the Clissold Park plot, returned a little later with pots of jam and chutney, together with the message that 'everyone should help those who are already doing useful things.' Members are kept in touch with a bimonthly newsletter full of project news and recipes.

Funding comes mainly from the members who pay £7 a week (or part cash and part LETS) for a bag of mixed, seasonal organic vegetables. Growing Communities sources its vegetables partly from an organic farm in Oxfordshire and partly from an organic wholesaler, buying nothing which has been grown outside Europe, in order to minimise food miles. There are hopes to develop more active links with the Oxfordshire farm through summer camps and weekend workdays.

The contamination issue has, unfortunately reared its ugly head. Although, the Clissold and Springfield Park plots are both in Victorian parks where contamination is unlikely to be such a concern, a testing programme at the Oaktree site is underway with help from Hackney Council. Crops being tested include carrots, swiss chard, spinach, cabbage, lettuces, tomatoes and beans. Raised beds are also being built, while composting and mulching help to keep the soil as alkaline as possible. Although none of the produce is being sold until the problem is sorted out, the ultimate aim is to turn the Oaktree plot from a derelict urban wasteland into a flourishing, Soil Association certified organic garden.

Dartford Road Allotments
Graeme Laidlaw, 262 Princes Road, Dartford DA1 2PZ tel: 01322 409184

Dartford Road Allotments is an example of dig local, link global. It combines practical activities to improve the natural and social environment with democratic and autonomous management and extensive links with organisations in and beyond Dartford. The Allotment Association, whose membership includes all plot holders, was formed in 1991 as an initiative of the local garden society. In 1992 it assumed legal responsibility for all the financial and other affairs of the allotments. Day to day work is carried out by a democratically elected committee with around 12 members, which appoints the trustees.

One of the first steps it took was to double the rent The results include twelve water points on site (compared with four in 1991), with all water metered and rubbish cleared away. The Association has provided barrels (donated by a local company) as water butts for £3 each to members, as well as free pallets for building sheds, raised beds and so forth. Many of the constructions on site are now made of recycled materials, while the local garden society runs a hut selling horticultural supplies. The improvements have greatly increased the site's popularity. In 1991 only 76% was legally tenanted; now the site is full and has a waiting list. There are now 115 tenants on what were originally 98 plots, this subdivision helping to meet demand and to make cultivation easier for busy, often younger people. There are more of these now, with the typical plot holder around six years younger than before 1991.

The site is home to a range of community activity. Barbecues three times a year attract 60-80 people late into the night and group arrangements such as bulk-buying manure are common. There are coach trips, and the garden society organises monthly horticultural lectures and an annual Flower and Vegetable show. There is a plot for people with learning difficulties and the association is working with a local mental health charity to start a scheme on another site. One plot rented by the probation service will produce meals for the elderly in East Dartford, and offenders have helped with general site maintenance. School children have surveyed the recycling activities on site and some plot holders are helping school children grow pumpkins for the Great Dartford Pumpkin Competition.

The Association has developed various ways of coping with its popularity. It has formed an overspill agreement with nearby sites, which has helped increase take up more generally in the area. When plots do become vacant, priority goes first to people living nearby, and second, to Dartford residents. Tenants who do not keep up their plots are encouraged either to take smaller plots or to cancel their tenancies in return for a place on the Priority Reapplication List, which puts them at the top of the queue if they want to return. But there is a bottom line - tenants who continue to neglect their plots receive notices to quit.

The committee seeks to involve tenants as fully as possible in the site's management, bearing in mind that some people do not want to get involved. The minutes of all meetings are displayed on the notice board and there is a twice yearly newsletter. More important, committee members try to keep regular and informal contacts with plot holders so problems can be sorted out tactfully before they get out of hand.

The Association's activities go beyond the site. It is active in the Local Agenda 21 Forum, QED, and catalysed the development of the QED Allotments Group. The Association has been the driving force behind other groups on health, biodiversity and waste management and members are now helping set up a QED Food Forum which will work to develop a sustainable local food economy. A member of the Association also sits on the Local Government Association's allotments advisory group.

Harington Scheme
John Turp, 55a Cholmeley Park, Highgate N6 5EH tel: 0181 341 3657

The Harington training scheme provides horticultural training for young people with special needs. All have learning diffulties - some profound - and a few have physical disabilities too. Around 20 young people (aged 16-24) can receive NVQ training, with five more on a 'training for special needs' course through the New Deal Voluntary sector option, and another five places for older people with learning difficulties. Social services also refers day patients for informal horticultural and social skills training. Until 1997, most trainees were young white men. Following a recruitment drive, ethnic minority participation has grown from 8% to 56% in a year, and women's involvement from 8% to 28%.

Based in Cholmeley Park in Highgate with a smaller site in Mill Hill, the project has recently acquired land and premises in Finsbury Park to allow it to expand. The course covers ornamental and vegetable growing, grounds maintenance and conservation work. Although not strictly organic, no chemicals are used. There are also courses in literacy, numeracy and other life skills. As well as on-site training, students gain work experience through placements with organisations such as the Corporation of London, Camden Garden Centre, Freightliners City Farm and West Ham football club. Last year, 82% got jobs with the remainder going to sheltered employment, often at the Harington gardeners, the project's own work scheme which carries out contracts for housing associations, schools and other organisations.

But the scheme is about more than jobs which, for some, will never be possible. It is about helping them develop as fully as possible, through developing new skills and learning to interact and cooperate with others, hence the project's social element is very important. There are regular outings and special occasions, and events where trainees sell what they have grown to the public. Once a year the trainees go on a residential course, where they can try abseiling, rock climbing, canoeing and horse-riding.

Health is another important element and for three years the project has run a Health Education Programme, covering healthy eating, exercise, smoking and so on. Students also learn to cook, sometimes using the food they have grown, and the scheme provides cooked breakfasts, having discovered that many trainees - often from deprived backgrounds - were arriving without having eaten. Moreover, environmental awareness tends to grow as a result of trainees' horticultural work and the feedback is immensely positive: 'I love it, I just really enjoy it… if I didn't come here I wouldn't have my home, I wouldn't have gone to the Chelsea Flower Show. Everyone here's really helped me out,' says one. Another trainee comments, 'My favourite thing is when we have the sales, to see a whole lot of people buying our stuff.'

As well as staff and trainees, around 17 regular volunteers help out with gardening, literacy and in other ways. Many gain as much as they put in 'I could really do with a morning in the greenhouse right now to calm me down as I'm trying to organise the house and children …Gardening is such good therapy …It's always very encouraging to see the enthusiasm of the trainees.' The support of the 'Friends' is also invaluable. This network of around 270 mainly local residents hold fundraising events, plan the Christmas party, help with cookery classes and so forth. Half the funding comes from Government training programmes, 25% from charitable donations, and a further 25% self generated through sales and outside gardening work. Funding criteria in the past has been very output driven - based on the numbers gaining work. However, funders are gradually recognising that a broader assessment of 'outcomes' is more productive. This allows the scheme to focus on a more holistic approach to trainees' development.

Cable Street Community Garden
Jane Sill, 101 Mathilda House, St Katharine's Way, London E1 9LF tel: 0171 480 5456

Although formally constituted in 1981, the Cable Street site has been used as a community garden since a local Friends of the Earth group took over the site in the mid-1970s. From the start, the garden was seen as a way of helping to improve the local environment. No chemicals are allowed and, with a pond and wildlife area on site, foxes and other animals are frequent visitors. Most of the gardeners also make use of and recycle old materials and compost their waste.

Although it is up to individuals to decide what to grow, most grow some food and a few plots are entirely devoted to fruit and vegetables. Some people use the garden to socialise, bringing along their families and a picnic. For others the garden is an escape from domestic pressures - understandably in the case of one gardener with fourteen children... There is also an annual open day where visitors can come and look around the garden and the half hectare, 41 plot site is home to people from all over the world - including Japan, Poland and the Outer Hebrides. Around a quarter are of Bangladeshi or African-Caribbean origin, a around a quarter are Irish, particularly older men, and around half the gardeners are women. This diversity sometimes gives rise to tension.

Some of the elderly gardeners who have the time to cultivate their plots to a very high standard, sometimes complain about the time-pressed younger gardeners with families who can let their plots slip a bit. Nevertheless, by bringing people from different backgrounds together to 'cohabit,' the plot has also helped bridge divides. After all, the plot holders have at least one thing in common - an interest in gardening. As a result, the gardeners have presented a united front whenever the site's future has been endangered. For instance when, in the early 1990s, the neighbouring school claimed ownership of some of the garden's land, the gardeners all campaigned together to keep the land for gardening. Although they were unsuccessful, with the school gaining some of the land for use as a car park, this co-operation in itself was an achievement. Also on a positive note, the Council provided a piece of land for gardening just across the road in compensation. These, the Glamis Road community gardens, are now managed autonomously. The question of land has proved emotive in other ways too. Some gardeners are very persistent about clinging onto their patch even if they do not have the time to cultivate it.

Vandalism is a problem which comes and goes in cycles. Indeed the main difficulty the garden faces is that with no long term security of tenure, its future is always uncertain. Fortunately, strong support by some local councillors means that attempts to develop the site have been warded off. It is very important for the project, though, that it attains more formal, permanent status.

The gardens are run by volunteers, with funds for maintaining general areas and buying equipment coming from the £12 (£5 for retired and unemployed people) annual rent charge which plot holders pay. Individual plot holders attend regular monthly meetings to discuss issues of concern to the garden. While the lack of paid staff can spell disaster for some projects, in this case it may well be the source of its strength. People are involved - and stay involved - in the garden because they are passionate about it. As such, they tend to stick around. This means that the gardens have not suffered from the 'professionalisation' which can affect other more formal projects, where staff stay in the job for a few years and then move on.

Bringing it all together

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- community development
- health
- education
- economic development
- sustainable land use

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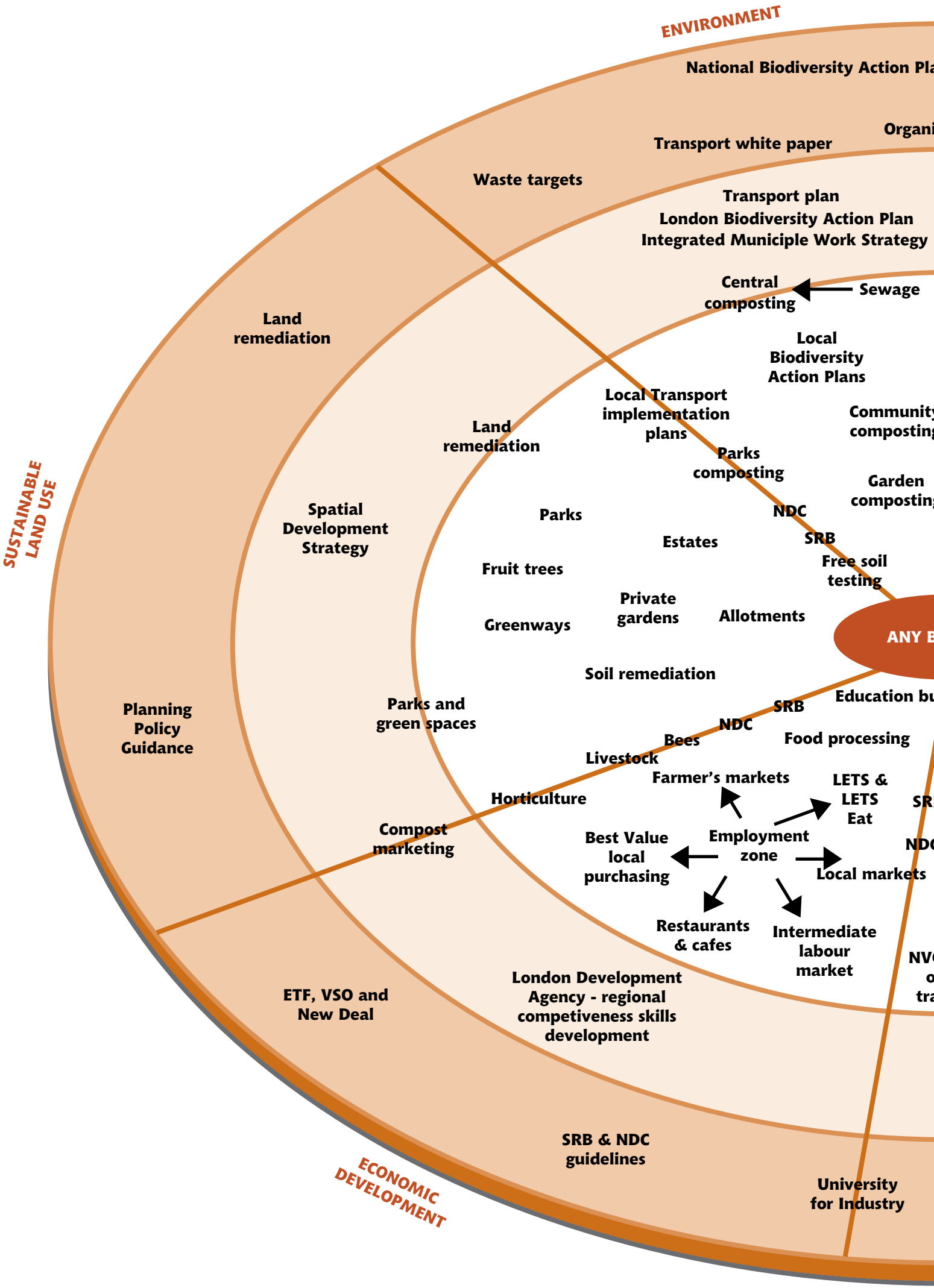
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Food processing
Livestock
Planning Policy Guidance
Farmer's markets
LETS & LETS Eat
Horticulture
Compost marketing
Best Value local purchasing
Employment zone
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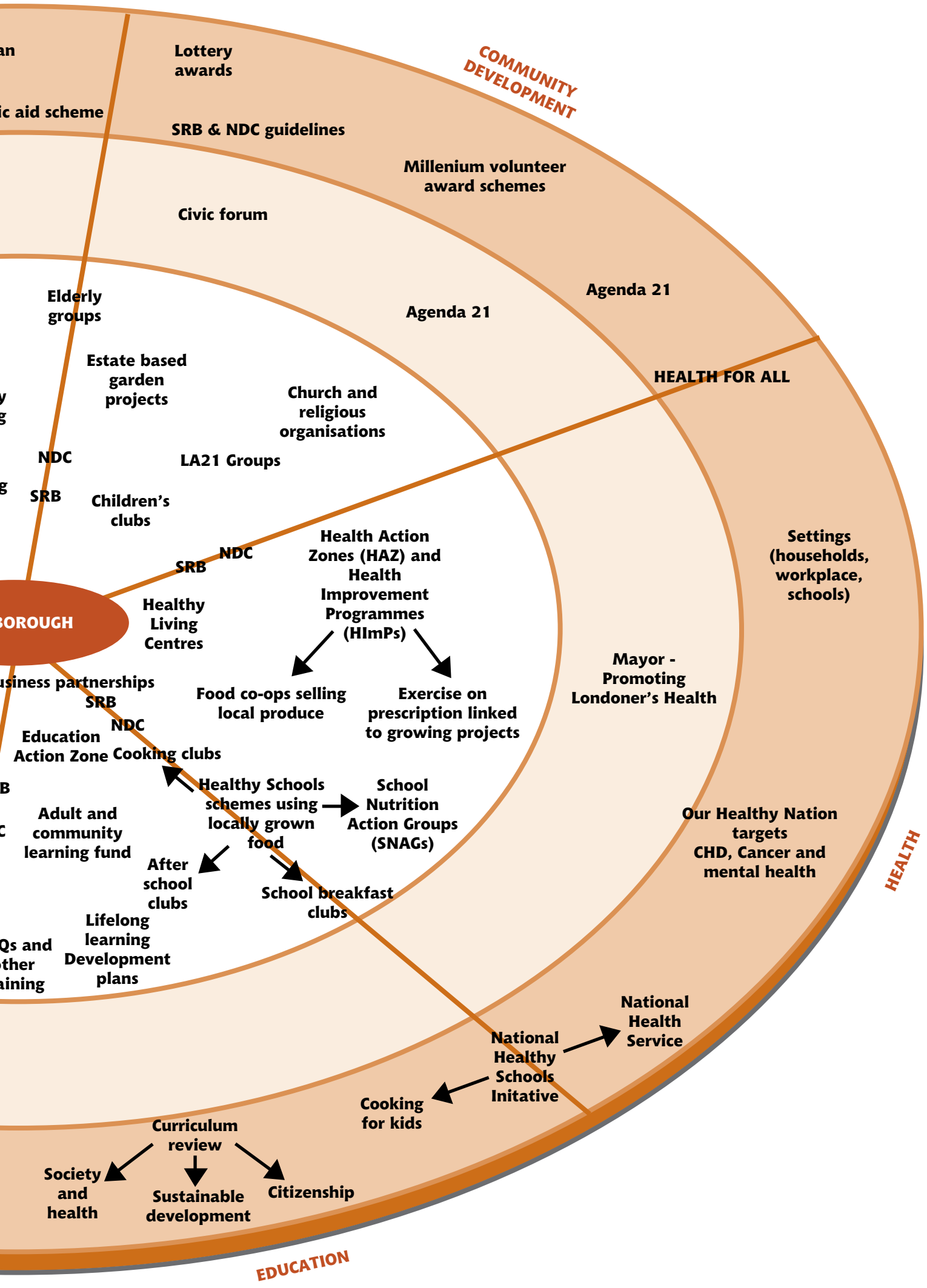
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Millenium volunteer award schemes
Civic forum
Agenda 21
Agenda 21
Elderly groups
Estate based garden projects
Church and religious organisations
LA21 Groups
NDC
SRB
Children's clubs
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Health Action Zones (HAZ) and Health Improvement Programmes (HImPs)
Settings (households, workplace, schools)
Healthy Living Centres
Mayor - Promoting Londoner's Health
Food co-ops selling local produce
Exercise on prescription linked to growing projects
SRB
NDC
Education Action Zone
Cooking clubs
Healthy Schools schemes using locally grown food
School Nutrition Action Groups (SNAGs)
Adult and community learning fund
Our Healthy Nation targets CHD, Cancer and mental health
After school clubs
School breakfast clubs
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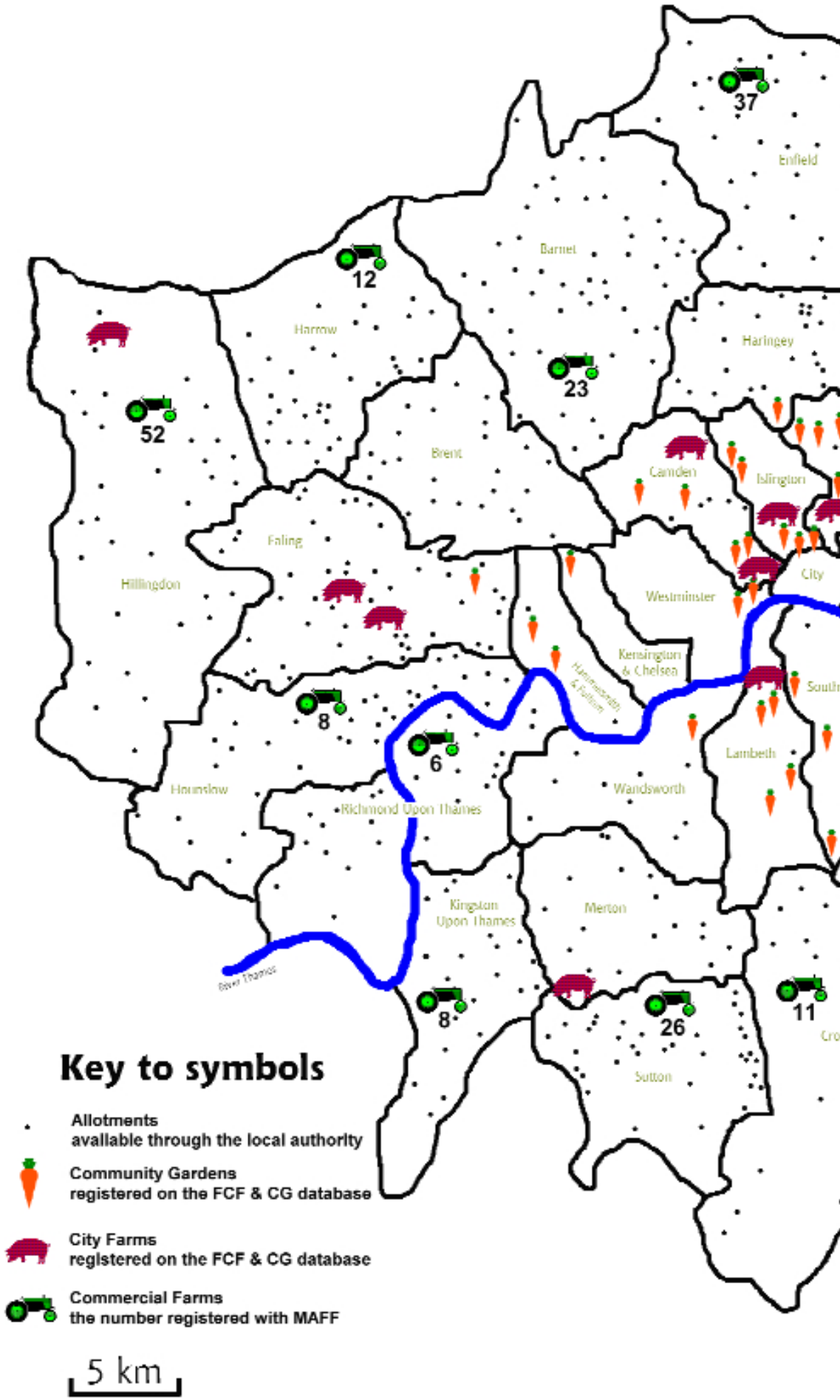
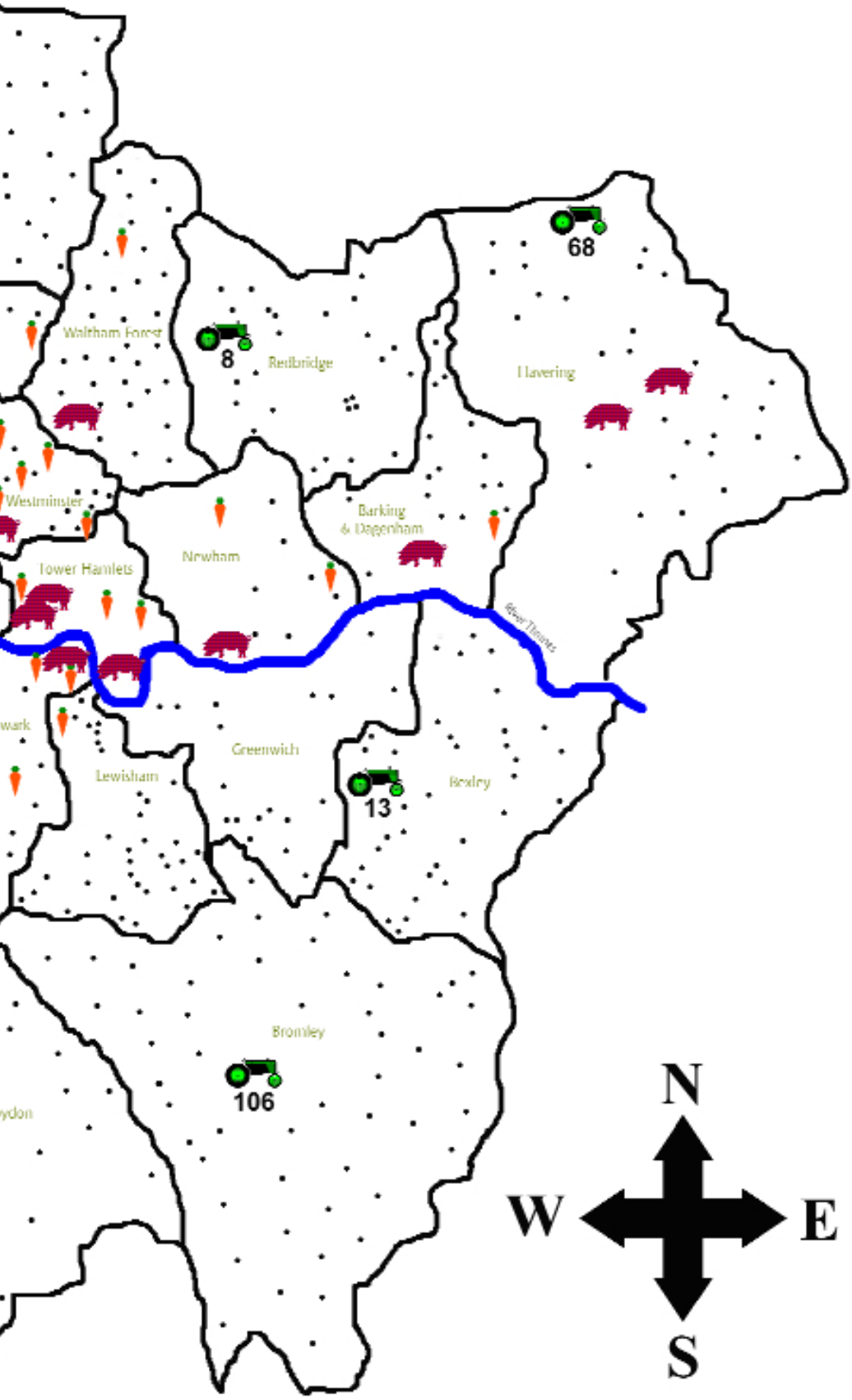


growing locations in London



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Surrey Docks City Farm
Daphne Ferrigan, James Taylor, Sarah Plescia or John Duignan, South Wharf, Rotherhithe Street, London SE16 1EY tel: 0171 231 1010

Located in the shadow of Canary Wharf, Surrey Docks city farm is surrounded by suburban-style housing estates, some council owned but increasing numbers in private ownership. Shops and other facilities are few and far between, with the nearest cluster a couple of miles away. Compared with its bland and arid surroundings, the farm provides an almost shockingly lively contrast. It began life in the 1970s, half a mile from its present location and was started by local Friends of the Earth activists as a way of reclaiming urban waste land for the environment and for local people. Development pressures forced it to move in 1986 to where it is now and it is funded by a number of organisations including Southwark Council, social services, and charitable trusts. It also generates a small amount of income from meat and produce sales, the café and school visits..

Much of the two acre farm is given over to animals - including pigs, goats, chickens and turkeys - although there is also a small orchard, a vegetable growing area, polytunnels and a greenhouse. There are buildings to house the animals, the café and classrooms. One has a turfed roof and there are hopes to build a new building from straw bales. Dotted around the site and in the classrooms are a variety of animal sculptures made from willow and an assortment of recycled materials - from buttons and corks to old drinks cans. Many have been made by children with the help of community artists.

Children are central to the farm's life. Thousands visit each year and the farm has developed an extensive range of teaching materials to cater to their educational needs. Based around the farm, its activities, sights, smells and sounds, these provide a means of teaching a range of national curriculum subjects, from maths to English to sciences as well as exploring personal, social and health educational issues. Feedback from teachers and pupils alike tends to be extremely enthusiastic but although one or two of the local schools visit regularly, most do so only on an occasional basis. This inevitably limits the farm's educational potential and the project workers feel that for the farm to fulfil its role as a living classroom there needs to be more regular and sustained contact with the schools. Curriculum pressures, including the recent introduction of literacy and numeracy hours, present a challenge.

People with learning difficulties play a major role in the farm. The New Leaf project provides accredited training in horticulture while the Farm Produce scheme enables people to take part in dairying, and in making produce from dried flowers and beeswax. These activities help participants develop valuable practical and social skills.

The farm employs four full and two part time staff and, with no overall co-ordinator, decisions are made democratically at regular meetings. The staff also rely heavily on volunteers who help with all aspects of the farm's life, from mucking out animals to working in the café. These span a range of backgrounds, ages and abilities and include an ex-merchant banker, people with disabilities and local mothers. Some are long-time regulars, while others are on brief work placements from school. Ultimately, Surrey Docks is as much about farming people as animals. It is there for the community resource and also gently steers people towards new ways of thinking and acting. Sometimes this can lead to problems. For instance, the fact that all the farm animals are eventually sent for slaughter upsets some people who have become very attached. Nevertheless in the project workers' view, this aspect of farm life is essential if people are to gain an understanding of farming and of where their food comes from.

The Proper Job Community Co-operative
3 Fernleigh, New Street, Chagford, Devon TQ13 8BD tel: 01647 432616

The Proper Job Co-op runs a café/shop, two growing sites (about half a hectare in total) and a composting scheme. The scheme has evolved from a community composting scheme; developing a market garden to make use of the compost and then selling the produce on seemed to be logical next steps. However, delays in acquiring planning permission and lease agreements actually meant while the café was set up in September 1995 it was not until 1997 that the market gardening activities started. Since then, though, the allotments and polytunnel have been yielding a mixture of produce, particularly salads such as mizuna and roquette as well as coriander, parsley, basil and some vegetables.

The café uses the market garden produce in the meals it serves; in all, own-grown vegetables provide around a quarter of vegetables the café uses. In addition the co-operative sells its produce in the shop - their mixed salad bags, containing a selection of 'gourmet' leaves, are particularly successful - while also supporting local organic growers by stocking and selling their produce. It also sells fair trade products and runs a refill service for cleaning products.

Originally set up entirely through voluntary effort and donations, the café/shop, The Courtyard, now employs six people as well as using some volunteer help. All the café's organic waste is composted and used in the market garden where recycling credits from the Council pay for the work of a part-time composting worker. In addition the co-op makes use of semi-voluntary workers who are paid partly in cash and partly through LETS.

The project is not self financing; last year allotment-vegetable sales totalled only £1,500 but it hopes that this will increase to to £2,500 - £3,000 this year. The Co-op also earns income by running courses in organic horticulture, composting and other skills, and through grant funding - since it started it has attracted funds from the European Regional Development Fund, Rural Development Commission, Devon Joint County and District Recycling Committee, West Devon District Council and the National Lottery Charities board. It has recently won a small grant to start a pilot kerbside collection scheme for kitchen wastes.

Since it was set up, Proper Job has grown rapidly, both in its membership and in its scope of activity. As a result it has needed to rethink the way it is managed and recently members have set up a number of advisory groups each focusing on a particular aspect, such as composting/recycling, finance and administration, and training. In 1998, Proper Job took part in a pilot 'Quality Self Assessment System' which provided useful models for improving management and communications. They have also been developing a system of Social Auditing to - in the words of its Constitution - 'assess the Co-operative's overall performance in relation to its objects more easily than may be made from financial accounts alone.'

Porlock Community Nursery
Lionel Hehir or Tony Adey, Groundwork South Tyneside, The Ecocentre, Windmill Way, Hebburn NE31 1SR tel: 0191 428 1144 fax: 0191 428 1155

The Low Simonside estate in South Tyneside has some of the highest rates of unemployment and ill- health in the country, but there is still great local pride in the appearance of the area. Hence, a neglected, vandalised piece of land - once a productive nursery - in the middle of the neighbourhood was an especial source of irritation for the house-proud local residents. They complained to local councillors, arguing that the land could be put to good use. In response, the Council contacted Groundwork South Tyneside to discuss ways of improving the 1½ acre site. Groundwork proposed developing a nursery which would improve the environment, create training opportunities, and provide the community with fresh food and bedding plants.

A community consultation conducted with the help of local Prince's Trust volunteers revealed strong enthusiasm for the nursery scheme. European and SRB funding was already available and so in February 1996, the project began its 'Groundcontrol' training programme. Staff, Groundwork volunteers and the local community cleared the site and planted part of it with vegetables. They renovated an abandoned old greenhouse and installed heating. Three more large greenhouses - 80 by 20 feet - were salvaged from a site further away in South Shields. All four are now in use - as a sales area, for bedding plants and for vegetable production. There are also two polytunnels for vegetables.

With a full-time trainer, around 30 local unemployed people a year were receiving horticultural training. Some went on to get jobs in horticulture while others, having gained skills and confidence, found work in other industries. Local volunteers, gardening enthusiasts, children and people with learning difficulties helped out or dropped in to buy vegetables and bedding plants. Thanks to its success, the project expanded onto Oakleigh Gardens on the edge of the deprived Cleadon Estate, bringing the area cultivated up to three acres. Groundwork is now working to involve young unemployed people in horticulture, as part of the Youth Works project it runs in partnership with the charity Crime Concern on the estate.

In its early stages, the focus was on growing produce such as broccoli, peppers, courgettes and spinach. But it was soon clear that local people preferred the more traditional potatoes, carrots, swedes and onions. A compromise developed, with some 'traditional' vegetables grown as well as 'exotics' for income generation, the plan being to supply a local box scheme. The sale of bedding plants, however, has been by far the biggest earner and in 1997, income from sales was £9,500 while capital spending (not including salaries) was £11,500.

In the summer of 1998, two project staff left for other employment which has delayed the project's development. It is taking time to find a suitable replacement since the ERDF funding has nearly come to an end. As a result many plans - to involve a community dietician to run cookery classes and produce recipe sheets, and to work with Durham University and other voluntary groups to establish a regional growers' network - have not been achieved although the intention still exists. Similarly, although the project had nearly achieved organic status, this too suffered a set back, partly because of staff time constraints.

Despite these difficulties - which are part and parcel of many projects' experiences - the scheme is very much alive. Groundwork is reapplying for funding, but in time hopes to rely less on outside sources and more on generating its own income. The production of bedding plants for sale may enable them to achieve this while also supplying affordable fresh vegetables for the local community.

Gardening for Health
Hawarun Hussein, Heartsmart, Health Promotion Service, Salts Mill, Saltaire, Shipley, West Yorkshire BD18 3LB tel: 01274 722069 or 01274 223910

Bradford's Bangladeshi community suffers from high rates of coronary heart disease and diabetes. The City's Heartsmart programme has been working for some years to address inequalities in health, including through better diets and physical activity. The idea for a food growing project, based on the positive experiences of existing community food growing initiatives in Bradford, was developed by a community health worker and environmentalists in consultation with local Bangladeshi women. The project started in winter 1996, when the community health worker, Hawarun Hussein, brought local Bangladeshi women together to reclaim a derelict allotment site with help from the Bradford Community Environmental Project. Most were aged 30-50, only one spoke English and all were in purdah. Some had had previous farming experience in Bangladesh.

Early on, the going was very hard. Most of the women were very unfit, tired easily and it was hard to keep them coming to the two hour, four times weekly sessions. They were reluctant to do heavy work, seeing this as a man's job. Initially the sessions were very gentle and Hawarun arranged transport to and from the nearby Community Centre partly because they were not fit enough to walk and partly because they lacked the confidence to walk down a public street. Moreover, the women belonged to hierarchical family networks and the idea of working on an equal footing with others was unfamiliar. Older women tended to 'direct' the younger women and it was difficult to encourage more co-operative ways of working.

Over time, the situation has improved dramatically. The core of 8-12 women are enthusiastic regulars, growing a wide range of range of vegetables, fruit and herbs. Some now grow vegetables in their own gardens too and, by acting as a source of gardening knowledge in the local community, are stimulating more widespread food growing. Heartsmart has evaluated the project and found the benefits to be:
Physical fitness: The two hour sessions are not long enough now. The women walk the mile each way to and from the Community Centre and walk more in their daily lives too.
Relationships: the project has enabled the women to develop friendships on a non-familial basis, and to have identities beyond those of the adoring mother or perfect wife. While maintaining respect for the older generation, they are also co-operating in their work on a more equal footing.
Confidence: The women make more of the gardening decisions themselves. They also have the confidence to walk down the street and, despite opposition from some men, to keep at the project
Diets: many Bangladeshi imports are expensive meaning they only buy small quantities. The allotment produce is a useful supplement - in the summer and autumn there is something to harvest each week. Hawarun also links the gardening sessions with informal health and nutritional education, while the women also exchange ideas among themselves.
Environmental awareness: The plot is cultivated organically. The women sometimes bring their children; many of whom have so little contact with the environment that they believe trees are 'built.'
Publicity: as well as national radio and television coverage, a student has made a video of the project.

Funding is from many sources including Heartsmart, the Shell Better Britain Campaign and the Civic Trust's Local Project Fund,with contributions in kind from the Bangladeshi Community Centre, Bradford's Allotment Action Group, the Bradford Community Environmental project and Bradford's local Agenda 21 forum. This funding has helped provide childcare for the women, buy equipment and plants and pay expenses for volunteers, and for transport. The community worker has also produced a self-help pack to enable others to learn from their experiences.

The Nutrition Garden Project
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The Nutrition Garden project was an experiment undertaken by Albie Miles, a graduate at the Center for Agroecology and Sustainable Food Systems at the University of California, Santa Cruz. His aim was to determine whether a 4,500 square foot plot could yield enough food for a balanced diet all the year round, meeting all his calorie, protein and other nutritional needs, as well the compostable and other material required for maintaining the soil's fertility.

The project started in Spring 1996 and from planting the first seedlings to laying in the last cover crops, he kept records of what he grew, what he ate, his labour and his yields. Albie's cultivation techniques were based upon the French intensive gardening method. This technique, devised by Alan Chadwick in the early part of the century and developed further as 'biointensive gardening' by a Californian non-profit organisation Ecology Action, produces very high yields using double-dug, raised beds, improved with compost. Seedlings are planted so close together that the leaves of the mature plants just touch, reducing moisture loss from the bed and forming a living mulch that keeps weeds down. This can produce yields up to ten times higher than those produced by conventional practices.

Albie devoted 2,500 square feet to food production and the rest to paths, compost areas and so on. Because the land he inherited had been cultivated for some years and was therefore depleted of certain nutrients, Albie did initially apply bought-in compost, on the grounds that had the garden been running for longer, the necessary compost would be to hand. He grew a range of crops; corn, amaranth, spring wheat, potatoes, dry beans and winter squash for calories, and onions, sunflowers, dark green leafy vegetables and successive sowings of carrots, beets, green onions and bok choy to meet other nutritional needs. Between April and October, Albie restricted his diet almost entirely to food from his garden although he purchased storable crops such as grains and dried beans which he would have had if the garden had existed the year before. Much of the shortfall was due to a low potato yield - less than half the average usually produced by these methods. Greater yields are likely in the future as the soil fertility improves.

During this time the garden provided Albie with an average of 2,900 calories a day and all the nutrients he needed with the exception of vitamin B12. A typical breakfast consisted of toasted amaranth porridge with winter squash. Lunch might be stir-fried or steamed vegetables with wheat and amaranth chapati bread and dinner a bean or vegetable soup and stir-fried potatoes, or greens with corn tortillas or polenta made from the corn he produced.

A considerable amount of work was required; between March and June Albie worked for 6 or more hours a day in the garden, five days a week. From mid June the pace slackened to four hours a day twice a week, increasing again to six hours a day, two days a week between August and October. For maximum nutritional benefit for the least labour Albie recommends growing dark green leafy vegeables and potatoes.

The nutrition garden is now integrated into the six month Apprenticeship is Ecological Horticulture, a course run by the Center for Agroecology and Sustainable Food Systems. Albie has now gone on to develop an apprenticeship in small scale intensive food production for low income, urban residents.

Source: The Cultivar (Winter 1997 issue), Newsletter of the Center for Agroecology and Sustainable Food Systems, University of California, Santa Cruz.

The Philadelphia Urban Gardening Project, Dorothy Blair, College of Health and Human Development, S-263 Henderson Building, Penn State University, University Park, Pa 16802, USA tel: 001 814 863 2912 fax: 001 814 865 5870 e-mail ey6@psu.edu

The aim of the study was to evaluate the social, dietary and economic impact of the Philadelphia Urban Gardening Project. Sponsored by the Pennsylvania State University Cooperative Extension Service which also provides technical assistance, and the Philadelphia Horticultural Society which provides soil inputs, water and fencing, this is one of the largest gardening projects in the US. Nearly 5000 families, including the urban poor, the elderly and members of diverse ethnic groups garden at 560 gardening sites, many of them located in vacant lots. The study asked the following questions:

- **Dietary:** Do gardeners eat more vegetables and less other foods than non-gardeners?
- **Psycho/social:** Why do people garden and how is it related to life satisfaction?
- **Economic:** What is the monetary value of the produce grown?
- **Ethnicity:** How do these factors vary between different ethnic groups?

Gardeners' profile: 144 gardeners were selected from a random sample - 40 black, 40 Korean, 40 white and 24 Hispanic, as well as 67 non-gardeners, reflecting that ethnic makeup, as controls. The gardeners were on average older, less educated, and with similar if slightly lower incomes than the controls and had also lived in the area for longer. Gardeners had had their plot for 4 years on average, (ranging from 1 to 13 years) and spent around 11 hours a week gardening. Most had a plot at a community garden although a 1/5 gardened in a vacant lot near their home. Gardeners had fresh produce for around 5 months a year and 10% harvested all year round. 62% also froze, canned or dried their yields. Over 40% donated produce to a church or community organisation.

Reasons for gardening: gardeners gave recreation as their main motive at 21%, followed by mental health benefits (19%) and physical health and exercise (17%). Nutritional gains came at 14%, with spiritual reasons (10%), gardening for self expression (7%), and cost or convenience(7%) lower.

Dietary impact: Gardeners ate significantly more dark green leafy vegetables (cabbage, sprouts, broccoli, kale) as well as cauliflower, pak choi, squash, okra, aubergine, tomatoes and herbs significantly more than the controls even after controlling for the fact that consumption of these increases with age. Gardeners also ate slightly more of other vegetables too. Non gardeners ate more fruit, particularly citrus fruit and juices. Meat eating was similar although gardeners were more likely to eat meat-less meals. They also consumed less milk, dairy produce, sweets and sweet drinks.

Community participation: Gardeners were more likely to take part in food distribution projects, clean-ups and social events, even after controlling for their longer residence in the area. Korean gardeners were most likely to distribute food and black gardeners to participate in neighbourhood clean ups.

Life satisfaction: Gardeners across all groups gave a significantly more positive response than did the controls to each question. Though causality cannot be inferred, it seems that gardeners find life more satisfying and feel they have more positive things happening in their lives than non gardeners.

Economic value: The average economic value of the 151 plots was between $160 and $178 per year, with a range of $2 to $1134. 6% of gardeners had a yield worth more than $500. Gardeners spent an average of $47 on plants, seeds and inputs, so the average net yield of a plot was around $113.

Source: The Philadelphia Urban Gardening Project,Journal of Nutrition Education, US, July/August 1991 (JNE 23:161-167 1991)

New Farmers New Markets Programme
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Initiated by Cornell Co-operative Extension Services and working with a number of community based organisations, this project works to bridge the gap between demand for fresh local produce and its supply. Since 1989 the US State Departments of Agriculture and Health have promoted farmers' markets in New York City as a way of improving the diets of people on low incomes. They issued food coupons redeemable at the farmers' markets to 42,000 families. Although this generated $600,000 in market sales it was soon clear that there were not enough farmers markets to cater for the demand so many poorer areas were unable to benefit.

New Farmers New Markets was therefore set up to train adults and young people in fruit and vegetable growing on land allocated by interested organisations. Between 1992-4, 56 people took up small-scale farming through a number of schemes, on a total of 18 acres. This has allowed two more large farmers' markets to establish themselves, and furthered the business skills and opportunities for those involved. Some of the schemes supported through the programme include:

People United for Local Leadership (PULL): a volunteer-driven organisation in New York City which has cultivated 1100 square feet (approximately 33 by 33 feet) and has sold over 700 pounds of vegetables at the local Hamer-Campos Farmers Market, earning $470. PULL has also donated over 400 pounds of vegetables to the Claddagh Inn soup kitchen adjacent to the farm. In 1998 PULL plans to cultivate the entire growing area (10,500 square feet) to increase production.

Rikers' Island: this prison farm project has reduced its farm size from 12 to 8 acres in order to practice intensive cropping methods. It has also started up a food waste composting facility for the farm. Vegetables this year were consumed in all the city mess-halls and donated to City Harvest, an organisation that distributes food to the poor.

Gericke Farm The project is a one acre farm at Clay Pit Pond State Park in Staten Island. Special needs students have been farming and marketing food, so developing their ability to work as a team, interact socially, and complete tasks. The project earned $1,965 in 1997. The money was used to improve the farm and seed fund some of the school craft projects. In 1998, they plan to start a food canning project to increase off season sales.

The City Farms project, a collaboration with Just Food, Green Guerrillas and Food for Survival was piloted in 1997 to produce fresh vegetables for local food pantries and soup kitchens. 2,000 pounds of food were grown on 2 farms and were donated to 2 food pantries. In 1998 the project will be extended to 10 farms to serve more soup kitchens. The project also plans to involve pantry participants in the farming activities.

In a non urban setting the New York Mission Society has started up a one acre vegetable farm at a summer camp for 450 inner-city youth. This has supplied food for the camp and generated $1,200 in sales at the Harlem Farmers' Market. The profit will be used to double the farm size.

Highbridge Community Life farm is run by Dominican nuns who educate youth on the farm. The site serves the local farmers' market. The farm has now expanded to include a Community Supported

6) Community development

We are all strong enough to bear the misfortunes of others.

Duc de la Rochefoucauld

Summary

For some, food growing is a way of coping – rather than communing – with local people: a chance to get away from it all in a peaceful, productive haven. For others, growing food with other people is a way of stimulating friendships with people from a wide range of different backgrounds. Food growing schemes can be a focus for genuine partnerships, helping to rebuild local structures, both physical and institutional. Such projects can also generate a sense of ownership and responsibility, and provide a way for people who have been isolated or disaffected - unemployed people, young people, senior citizens – to reconnect with and make a valued contribution to their neighbourhood. Supporting urban agriculture can also be a way for local employers to show their commitment to the area.

Key facts

- Community food growing can provide a focus for a wide range of ice-breaking social and celebratory events
- Local authorities are already investing in food growing initiatives as part of their urban regeneration programmes
- Some food projects are beginning to integrate the food chain, either "forwards" (by exploring outlets for produce they have grown) or "backwards" (thinking about growing their own food to cook, or sell through a co-op)

The current situation

Individuals

It is worth noting that most food growing activity in London is not specifically community-based at all. London's 30,000 allotment gardeners by and large cultivate their plots on their own or with their family, although one or two might share plots and there are also a few community allotment schemes. For many allotment gardeners, the value of the plot is that it enables them to ***get away from*** rather than to commune with people - as such, it provides a vital therapeutic function ***(see Health)***. One survey suggests that the desire to socialise is not, for most, the original motive for acquiring an allotment[1] (although of course they may enjoy the social contact once it arises). Although many allotment sites do have allotment

societies, some can be fairly inactive, because people may not particularly wish to take on organisational responsibilities additional to those they have to encounter in their working and domestic lives.

And food growing is not necessarily for everyone. Food growing can be very hard work and the prospect of digging a muddy plot in the rain is not to everyone's idea of fun. Furthermore, many people have other very urgent concerns, such as crime or drug abuse, and food growing can have a whiff of the Marie Antoinette about it. It may be no coincidence that a mere 11% of people in social classes D and E grow food compared with 18% in brackets AB, nor that local Agenda 21 activity is strongest in the more prosperous parts of London. Wealthier people can not only 'afford' to be environmentally concerned but may also have the confidence to explore non-mainstream lifestyles while the 'socially excluded' often, and understandably, want what everyone else has; to be part of mainstream, consumerist society.[2] This often means supermarkets not vegetable plots.

Communities

This said, London is home to many community food growing projects as well as individual gardening activities. In Tower Hamlets alone, for instance, there are three city farms and around ten community gardens. In addition, the Council is working with the British Trust for Conservation Volunteers to develop community gardening activities - including food growing - on seven housing estates[3] as part of its SRB funded Greening Leeside initiative. The Tower Hamlets Allotments and Community Gardens Association ***(see Bringing it all together)*** provides a means for the food growing community to meet and exchange ideas.

Although there has been little formal evaluation which 'proves' the benefits, many community food growing projects have undoubtedly enriched the lives of their participants. One regular 18 year old volunteer at Surrey Docks City Farm ***(see case study)*** has been coming since he was a child. With slight learning difficulties and unable to read, he is probably nevertheless capable of securing an unskilled, low paid job. However his work at the city farm is, arguably, far more skilled and fulfilling than any paid work he would be offered and has enabled him to develop and take on increasing responsibility over the years. He has, by now, rendered himself virtually indispensable to the day to day running of the farm.[4]

The community worker at the Gardening for Health project in Bradford ***(see Health and case study)*** has seen enormous increases in the women's self confidence and they have developed strong and supportive friendships outside what can be restrictive family networks. So too, one volunteer at the Harington scheme ***(see case study)*** observes 'it's been great to see the people I've worked with change and mature. It's been very fulfilling to see them gain in confidence.[5]'

The Healing Gardens and Natural Growth projects in Hillingdon ***(see Health and case studies)*** have enabled marginalised and isolated people to come together, and build skills, confidence and friendships. It can also help people escape the stigma of dependency, of being provided for. As the Healing Gardens co-ordinator remarks 'the distinction between helpers and recipients has blurred. People who have been helped now enjoy helping others. This has enabled Healing Gardens to become a network of self-supporting gardeners who exchange skills and enthusiasm.'

Many of the people running food growing projects, for instance at Cable Street Community Gardens, Surrey Docks City Farm and the Natural Growth project ***(see case studies)***, have been working on these initiatives for years, almost invariably with effort disproportionate to their rather modest salaries and sometimes, as Cable Street, on a purely voluntary basis. This is in itself attests to the projects' value - why would these people put in so much if they saw no results? This continuity of staff is also likely to have been intrinsic to these projects' success.

For Growing Communities in North East London, building a 'community' is almost more important to the scheme initiators than the food itself. This scheme supplies organic vegetables to around 100 households and buys in as much of its supplies as possible from a small farm near London. In addition, the scheme employs a gardener to grow some food in a nearby park and has recently secured an additional plot where it is planning to expand urban production. Equally important, however is the fact that participants are kept abreast of developments with a newsletter and there are regular, and well attended, events such as digging days and barbecues.

Crossing boundaries

The scheme's success is probably helped by the fact that the membership comprises fairly like-minded, environmentally conscious people who can afford to pay a little more for organic produce. It can often be very difficult to cross social, cultural and economic boundaries. As with all community projects, food growing initiatives can in fact end up reinforcing social boundaries, because knowledge of them tends to spread by word of mouth and participants simply end up getting their friends to join. Projects targeted at specific groups - Bangladeshi women, for instance, or people with learning disabilities - have a similar effect. Such schemes have their own benefits, but cross cultural interaction is not necessarily one of them.

Nevertheless, community gardening can break down social and cultural barriers, as Grazebrook primary school's gardening project shows. Although reliant, in its early days, on the efforts of a few, mainly well-educated professional parents, gradually the project has drawn in a wider cross-section of the school's community. According to the project's co-ordinator

(and originator) nearly every parent in the school has now contributed to, or been involved in, the garden in some way. The children themselves have spanned every cultural background right from the start ***(see case study and Education and training)***.

Crossing such boundaries is not easy. The diverse mix at Cable Street Community Gardens can trigger tension among the gardeners ***(see case study)***. In a sense though, the garden provides a defined space, a mediation room, where differences can play themselves through and out. Over time, many gardeners have learned, at worst to keep their views to themselves, and at best actually to modify them - after all, however different people may be, they do have a common interest in gardening. Threats to the site's future from potential developers have also had the effect of bringing people together.

Sometimes food growing projects are a focus around which several 'communities' converge. In addition to the community of young trainees with learning difficulties, are the 'Friends of Harington,' who fund-raise and provide other kinds of support, and a group of regular volunteers who help trainees with gardening, literacy or numeracy skills. In this way, a symbiosis between perhaps very different kinds of people has emerged.

"Community" is a slippery concept, difficult to create and possibly threatening once so created. Cohesion may not really exist; with the 'community' comprising multiple mini-communities and ultimately individuals, conflict can arise. Not everyone thinks that vegetable growing is the best use for a plot of vacant land. A case in point is the conflict between the gardening community at Cable Street ***(see case study)*** and the neighbouring school community. In the end the school gained control of the disputed land and turned it into a car park.

What is more, project initiators may be a closely defined and self selecting group of people - who are, by their very nature, atypical of the wider community. It is vital that a project gains the support, or at least the acquiescence, of the wider community. It does not, however, need to reflect its values absolutely. Many food growing projects are, in a sense, one step ahead of the community, and their value lies precisely in this - that they demonstrate alternatives to the status quo.

Enabling people to see the value of this alternative can be difficult. The approach which some projects have tried is by drawing them into food growing through other activities. For instance, although Calthorpe Community Gardens in King's Cross has a number of gardening initiatives on site it also runs children's playgroups, arts and other projects. Many people do not initially come to garden but to take part in other activities or simply to use the on-site café. Their interest in the gardening can then develop after they have spent a little time there.

Uplands Allotments in Birmingham, the largest site in the country, is a thriving community space, an example of multiculturalism on the ground (as it were), with Caribbean callalloo growing alongside Asian coriander. The self-managed site has a café and community building, runs a 'Plotwatch' anti-vandalism scheme and organises a variety of social activities. It also held an extremely successful arts festival in the summer of 1998 which attracted hundreds of visitors, from middle class hippies to Bangladeshi teenagers, from ladies in tweeds to elderly men in kurta-pajamas.

The self-managed Dartford Road allotment site just beyond the boundaries of Greater London in Kent has grown into a hub of community activity ***(see case study)***. In fact the site is now so popular that there is a waiting list and the association has formed an overspill agreement with neighbouring sites to accommodate the demand. Social events, such as barbecues, regularly attract 70-80 people late into the night and reciprocal arrangements such as bulk-buying and sharing of manure are common.[6] Good management is perhaps key to its success. The management committee has not only improved the site's facilities but also maintains regular, low-key contact with the individual allotment holders, enabling problems to be resolved before they become serious.

In addition to the benefits people gain from food growing, many food growers make a direct contribution to others in society and to the environment. Practically all community projects rely heavily on volunteers. Members of the Growing Communities project ***(see case study)*** participate in tree planting and other conservation activities. Allotment gardeners often help elderly or less able gardeners with heavy digging work. Young offenders at the Dartford Road Allotments site ***(see case study)*** are starting to grow food to supply meals for the elderly in the area. One American survey ***(see Philadelphia Urban Gardening Project case study)*** indicates that community gardeners are more likely than their non gardening counterparts to participate in food distribution schemes and environmental clean-ups, as well as in social events such as barbecues. Although this may prove no more than that people who get involved in community gardening tend to be a civic-minded lot, food growing nevertheless provides people with the wherewithal to help - they have food to distribute and skills to contribute.

The potential

Regenerating the area

Regeneration schemes abound, ranging from the Single Regeneration Budget to more specifically targeted schemes such as New Deal for Communities, Health Action Zones and Education Action Zones ***(See Glossary)***. All these are area based, focusing on deprived and 'socially excluded' areas. London is full of such schemes. Since 1992 for instance, £277 million of Government regeneration funds have been injected into Tower Hamlets, which in turn have helped attract a further £292 million of private sector investment.[7]

There is certainly room for developing food growing activities through regeneration schemes. The SRB has already funded food growing activities such as the community allotments scheme on the Wren's Nest Housing Estate in the Black Country and there is room for more such initiatives, particularly since SRB 4 and 5 bidding guidances specify that the 'contribution of regeneration proposals to sustainable development should be taken into account when framing bids.'

There are four major, and a number of smaller SRB schemes underway in Tower Hamlets. In addition to this patchwork of existing schemes, a new SRB Round 5 bid has also been submitted. The focus of these SRB schemes is mainly on employment and housing issues; nevertheless, there is certainly room within this broader context to develop small projects. For instance the Stepney SRB is demolishing 800 flats and building new homes with private gardens. The scheme implementers, the Stepney Housing and Development Association (SHADA) could play an important part both in promoting private food growing and in developing community food growing schemes on the estate.

Central to the Tower Hamlets SRB bid's aims is the commitment to 'a devolved partnership structure based on local community partnerships' and 'a method of developing projects which aims to…involve the maximum number of community and interest groups.'[8] This emphasis on community involvement holds potential for food growing as there is already a strong base of community gardening activity to build upon.

One of the 'potential key elements' in the bid is the development of community gardening and café schemes to create employment opportunities for people with mental health and learning difficulties. Other 'key elements' include youth outreach, holiday schemes to prevent crime, cultural activities, work with young offenders and the Health is Everyone's Business programme (which will work with the HAZ and Health Improvement Programme - ***see Health and Glossary***) - all of which could include food growing elements.

However, decent working conditions are essential if more people - particularly the unemployed and those on low wages - are to become involved in food-related regeneration schemes. Indeed, certain basic provisions are increasingly recognised to be virtually a 'right' of volunteers;[9] such as tea and coffee, insurance, tools and protective clothing where necessary and of course the payment of expenses. People also like to feel that the activities are well managed (poor organisation tends to be the main criticism of voluntary projects[10]) and that their work is actually achieving something. One youth worker[11] pointed out that it can be extremely discouraging to arrive on site one week only to discover the plot has been vandalised. Often however, projects succeed just because of the drive and personality of the person who started it - circumstances that are hard to plan for.

Tower Hamlets, alongside Southwark, Hackney and Newham, is also one of London's four Pathfinder areas for New Deal for Communities. Its bid submission firmly emphasises ***process*** rather than ***projects*** and as such, does not propose specific activities. However, it does mention community gardening, and 'co-operative food ventures' as well as LETS schemes and a Healthy Living Centre ***(see Health)*** as possible initiatives, all of which could relate to food growing. Housing improvements are also likely to form a significant part of the New Deal. Development plans could incorporate food growing by, for instance, creating community growing spaces or planting estates with fruit trees and shrubs. There are existing models to follow - The Low Simonside estate in South Tyneside ***(see Porlock Community Nursery case study)***, Salford's Apple Tree Court and the Wren's Nest Estate in Dudley all have food growing projects.

There could also be room for developing gardening schemes through East London and the City's Access to Food initiative. Forming part of its Health Action Zone strategy ***(see Health and Glossary)***, the initiative will make around £40,000 available to projects in Tower Hamlets over the next three years.

Building local structures

Government strongly emphasises the need to involve communities in decision making and action. The Greater London Assembly will, for the first time since 1986, enable Londoners to have a say in the way London is governed and managed and the Mayor and Assembly will be required to consult widely and work closely with all sectors of London's community. Government is currently considering the London Voluntary Service Council's (LVSC) proposals for a Civic Forum,[12] which would represent London's diverse interest groups, including voluntary organisations, trades unions, and business and give them a voice in affairs affecting London. The LVSC is due to launch its Forum in the Autumn of 1999, but whether it will ultimately have a formal mandate from Government is not yet clear. Either

way, the Civic Forum could provide a means through which London's community of food growers could promote their interests.

At a more local level, the latest Single Regeneration Budget (SRB) Bidding Guidance states that 'it is crucial to ensure the active participation of local communities in the regeneration of their areas … they should be directly involved, both in the preparation and implementation of bids.' Similarly, New Deal for Communities (NDC) partnerships are 'expected to involve the whole community…secure their participation, listen to and act on their views, and gain their support' with a warning that 'solutions which are imposed on a community, rather than developed with them, won't deliver lasting change.'[13]

However, the rhetoric may currently outstrip attempts to achieve it. There is little evidence to suggest that the principles of local control and decision making have actually filtered through to mainstream policy making and, of course, mainstream policy has a far greater influence on people's lives simply by virtue of the money involved. Regeneration initiatives, however well meaning, are likely to have a minimal effect on, say, poverty forecasts compared with the impact of macro economic policies on peoples' lives.[14] Moreover, some externally imposed schemes fail because they do not enthuse, or reflect the needs of local people.

More specifically, the very short time scale for submitting bids for SRB and NDC funding means that there has, as yet, been little community involvement in preparing initial bids. Hence, out of 103 SRB round 5 bids to the Government Office for London in December 1998, only 14 were voluntary sector led.[15] There were no voluntary sector led bids for New Deal for Communities.

Nonetheless, the opportunities for stimulating local decision making are more promising now than they ever have been. Most of the NDC proposals stressed that the role of the local authorities was simply to help develop the voluntary and community sector to the point where it can take over the regeneration process.[16] Even the more 'output' oriented SRB schemes may allocate up to 10% of funds for 'capacity building' activities ***(See Glossary)*** to enable people to participate more actively in community life.

In areas where the voluntary sector is weak and uncoordinated, 'capacity building' may mean starting from scratch. Nevertheless, there is often already a base of activity on which to build. Most areas, for instance, have a local Agenda 21 group, many of which are doing good work despite the fact that Local Agenda 21 receives no central, and usually very little local government funding. Local Agenda 21 at best is a working example of democracy in action, bringing people together to define their concerns and to act for change.

Local Agenda 21 holds great potential for food growing activities. Government has already recognised the value of the allotment movement to local Agenda 21[17] and is working with the Local Government Association to develop ways of promoting best practice in site management and promotion. Some of the more active local Agenda 21 groups are already promoting allotments and food growing.

While local Agenda 21 can provide a mechanism through which to promote food growing, the flip side is that some food growing initiatives, such as the self-managed Dartford Road Allotments, demonstrate Agenda 21 principles in action, both in ***what*** they do - their environmental and social activities - and ***how*** they do it ***(see case study)***. The Allotments' self-managed status is probably key to its popularity and the quality of its facilities. Committee members, as allotment holders, are regularly present on site and as such are more able to respond swiftly and flexibly to plot holders' day to day needs and concerns, unlike local authority allotment officers who may only visit or be in contact occasionally. Furthermore, the sense, by plot holders, that they 'own' the site can stimulate more voluntary input, in contrast to the 'it's up to the Council to do it' attitude which local authority controlled sites can foster. After all, the allotment association members have a vested interest in working to improve the site - the more effort they put in, the greater the benefits for them.

Nevertheless, often the role of outside agencies in creating and sustaining local structures can be essential. Many 'community' projects are in fact initiated by outside organisations and would not survive without the support of professionals to keep the momentum (and money) flowing ***(see Porlock community nursery case study)***. This is hardly surprising, as many of them bring together people who - by the very fact that they are marginalised and isolated - might not be able to do so spontaneously. However, it does mean that there is little point in providing short term support and then abandoning the fledgling community, particularly if the community has not been involved in developing the project in the first place.

An unsuccessful statutory agency supported project in Canterbury is a case in point. Although the scheme's organisers dealt with the practicalities of the project, with the plots being cleared and modified to enable wheelchair access, the 'softer' elements were ignored. The participating agencies did not invest enough money or time in the scheme and the fact that they were going through a restructuring process, meant that responsibility for the project fell between different stools. Local people were not sufficiently involved in developing the scheme, and as a result, there was little demand for the plots; attempts to engage the locals elicited comments such as 'I'm too old, I can't do that.' A gardening project may not in fact have been appropriate in this instance and even if it were, dumping people on an allotment site with a packet of seeds is certainly not the ideal approach.

Research suggests that even those initiatives with potential to sustain themselves can take at least five years to reach that stage.[18] Particularly vulnerable communities may need an even longer guarantee of support but the current contract-based funding climate is not particularly promising ***(see Theory and reality: the CityHarvest project)***. It is important that regeneration partnerships allow for this when supporting local food growing and other community projects.

Promoting citizenship

Government's advisory group on citizenship headed by Professor Bernard Crick emphasises that 'volunteering and community involvement are necessary conditions of civil society and democracy.'[19] Food growing enables people to make this contribution to society. It can, however, be very difficult to involve people in community activities. Recent years have seen volunteering decline from 51% of the adult population in 1991 to 48% in 1997 (these figures do not, however, include the many people who do indeed take part in community activities but who do not necessarily register on Volunteer Bureau statistics).[20] Among 18-24 year olds the drop has been particularly steep, from 55% to 43%,[21] as it has among unemployed people - from 50% to 38%.[22] On the other hand more people in the 65-74 age group and above are volunteering than ever before

The reasons for the decline among certain groups are complex and the 'people are just more selfish now' theory is not particularly helpful. Most voluntary activity has always been motivated by at least some self-interest, whether it be the opportunity to get out of the house and meet new people or to develop new skills - what may have disappeared in recent years is the recognition by people that volunteering does indeed have something to offer them. Food growing projects could, potentially, attract a wide range of people provided they promote themselves in ways that appeal to different people's different interests, while acknowledging and seeking to overcome the various obstacles to volunteering which some people face.

Unemployed people

For instance, although unemployed people may have the time to volunteer, the low confidence and self esteem which unemployment often brings means that many may feel they have neither the motivation to help nor the skills to offer. Often people are extremely isolated and, as most information about local volunteering opportunities is by word of mouth,[23] do not actually know what is going on. What is more, being poor can in fact be very time consuming - convenient short cuts such as paying through direct debit or driving to the shops are no longer possible while queuing for buses and benefits are facts of life. The misconception, both by individuals and by local benefit offices, that the benefits system prevents people from taking on voluntary work can also be an obstacle; in fact anyone can

volunteer for unlimited lengths of time provided they are ready and available for work within forty eight hours.[24] Enabling unemployed people to develop new skills which improve their chances of getting work[25] ***(see Education and training)***, making it easy for people to volunteer if they have children, (see below) and paying expenses can help. Food growing can help people develop a range of skills, many of which are transferable ***(see Education and training)*** although there needs to be a great deal more support for the horticultural sector so that more jobs become available (***see Economic development)***.

Young people

Younger people can have many conflicting demands on their time and for them, volunteering suffers from a certain image-problem.[26] Nevertheless, the picture is not altogether gloomy. The voluntary sector option of Government's New Deal for Employment scheme is nearly as popular as the subsidised job option ***(see Education and training)*** suggesting that people are interested in work that benefits society. Young people have expressed interest in volunteering activities which also enable them to gain qualifications such as NVQs,[27] and Government's £48 million Millennium Volunteers Awards scheme should enable them to gain some recognition for their efforts. However, involving young people in food growing activities will not be easy. For many young urban dwellers, often brought up in garden-less flats, who can scarcely cook let alone grow food and who eat very few fruit or vegetables anyway[28] food growing can be a bizarre concept. Nevertheless, food growing projects are often about more than digging and planting. They can offer the chance for people to develop skills and qualifications not just in horticulture but in office administration, information technology, fund-raising, promotion and the many other activities which form part of any organisation's daily life.

Senior citizens

Involving older people in food growing may be an easier task. Gardening, including food growing, is already popular among this group whose numbers are, incidentally, increasing as the population ages ***(see Urban agriculture)***.[29] Volunteering among older people is already on the increase and this, combined with the fact that Government's Voluntary and Community Division is focusing specifically on encouraging more older people to volunteer, presents a promising picture. One productive approach might be to encourage older people to share their skills with the younger generation through, for instance, school projects. Allotment holders in Dartford ***(see case study)*** are, for example, teaming up with primary school children to help them grow pumpkins for the Great Dartford Pumpkin Competition.

Working along the food chain

Sustain's Food Poverty Project works to increase the availability of healthy food for people on low incomes. It has developed a network of people active in food and poverty issues, produces a regular newsletter, ***Let Us Eat Cake!*** for network members and holds community food project training seminars around the country. The Food Poverty Project has also worked with the Health Education Authority to develop a computerised database of community food projects including food growing initiatives. It is currently working with a number of partners, including people on low incomes, to develop and advocate a range of policy measures for tackling food poverty.

Children

Families with young children are usually pressed for time and it can seem impossible to fit in the additional claims made by volunteering. Nevertheless food growing projects which centre around, rather than ignore children can be very successful in attracting parents. Grazebrook Primary school ***(see case study)*** and Calthorpe Community Gardens are just two examples. Measures such as dividing up plots to make them more manageable and less time-demanding can also help ***(see Dartford Road case study)***.

Employees

There are also opportunities for promoting food growing activities through employer supported volunteering schemes. These enable employees to gain work-relevant skills while also helping the community. Paying employees while volunteering, which some businesses already do, can also be a significant incentive. Indeed research shows that business can actually benefit from encouraging employees to volunteer; involvement can improve their ability to communicate, work with others and think creatively,[30] while increasing motivation. Schemes can also improve local relations, raise a company's public image as a socially responsible business,[31] and increase its understanding of the community. Community involvement programmes, moreover, compare well in terms of cost and effectiveness with other training schemes,[32] while enabling businesses to fulfil their role - as Government urges them to do - as promoters of 'lifelong learning.'

Employee involvement in food growing activities could take many forms - from practical gardening activities to helping with project management, fund-raising, small scale business development and marketing. Indeed, taking the food chain backwards may be a logical next step for a school 'healthy tuck shop' or a food co-operative. Sandwell's Urban Growing Spaces is attempting to do just this.

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7) Education and training

Term, holidays, term, holidays, till we leave school, and then work, work, work till we die.

CS Lewis, ***Surprised by Joy***

Summary

The process of growing food can provide almost limitless opportunities for learning, as many educational institutions have already discovered. It can be adapted to all ages and abilities, and can be as structured or as informal as required, leading nowhere other than up the garden path, or to a range of qualifications and to employment. Most activity is currently focused on younger children and on those with less academic ability, as there is often more flexibility and less examination pressure. Urban agriculture's potential for contributing to curriculum development and the education of older children and adults could be further developed. Similarly, food growing could provide far more opportunities for employment-related training than many people realise.

Key facts

- An inspection of a primary school made a point of praising their food growing activities and urged them to maintain the initiative
- Some 700 schools are members of Learning Through Landscapes, a charity that greens school grounds for educational and community benefit in London
- The environmental "industry" is one of the world's fastest growing sectors, so training in sustainable technologies for growing, processing and distributing food will be essential if the UK is to take its place in that market

The current situation

The value of food growing to education is not easier to measure than its health or environmental value. Nevertheless, some schools have found significant benefits. Grazebrook Primary School in Hackney ***(see case study)*** has run a food growing project for three years, thanks to the efforts of one determined mother. Teachers, reluctant at first, have gradually come to see the garden not simply as an extra burden on their time and efforts, but as a basis for teaching the curriculum. Some use the garden regularly.

For many of these inner-city children, the school garden is the first time they actually see food growing in the ground. The garden has also

stimulated more parental involvement in school life. Although initially the project drew in the more educated, 'green' parents, now there is a far broader mix, with Bangladeshi mothers leading cookery demonstrations which use some of the garden produce. Tasting food they have grown themselves has converted even the most reluctant children to the possibility of enjoying vegetables - an extremely important development, given that less than a fifth of children or young adults eat fruit or vegetables more than once every day, compared with the recommended five daily portions.[1] The school also holds an annual 'Farmers' Market' with stalls of fresh produce and cooked foods for parents and the wider community to taste and buy.

The school recently underwent an OFSTED ***(See Glossary)*** inspection and although the ensuing report was negative, the garden was singled out for praise and the school strongly encouraged to keep the initiative going. The garden has helped sustain staff and pupil morale and improve pupils' behaviour, largely because children have had a stake in every aspect of the project. From the project's start, the co-ordinator has, with notable success, made a point of engaging some of the most difficult children.

A number of schools in Tower Hamlets are also growing, or planning to grow food in the school grounds. Bigland Green School has grown a range of plants from seed, including courgettes, peppers, pumpkins, cauliflowers and herbs, with these activities forming part of their science activities. Elizabeth Selby Infants schools is growing radishes in raised beds while Downside and Marion Richardson Primary Schools are planning food growing projects for later in the year.

The Humanities Education Centre in Tower Hamlets, has recently received European Union funding to run a 'Global Footprints' project. This development education centre will work in four primary schools (Hermitage, Stebon, St Paul's and Sir John Cass) and one special school (Bromley Hall) to help children examine the impact of small everyday actions on the wider social and natural environment. Along with water, waste and pollution, materials, energy and transport, food and food growing will be one of the six topics that pupils will explore. In fact it was the children themselves who suggested growing food, in their responses to a questionnaire which the education centre sent out. The children will initially be growing and cooking a range of old fashioned vegetables such as scorzonera (similar to salsify), and examining the historical importance and geographical origins of food. These activities will form part of schools' curriculum teaching, including their literacy and numeracy work, and there will also be opportunities for data handling and IT work. As many of the pupils are of Bangladeshi origin, the project has also established links with schools in Bangladesh.

The project is still in its very early stages but in time, the Centre plans to extend the project to secondary schools as well as to other areas in the UK,

Counter Culture

At York University's Faculty of Environmental Studies in Toronto, Canada, the canteen, Counter Culture, is a not-for-profit business entirely managed and run by students. Its mandate includes serving affordable healthy food - organic in many cases - supporting local growers and producers, providing worthwhile employment for students and raising community awareness of food issues. It employs three student managers, seven counter staff and a cook, and serves snacks, beverages and between 10-30 meals a day.

Started in Autumn 1995 as a replacement for the existing multinational Marriot food caterers, Counter Culture doubled its sales in the first year. It now manages a turnover of about $30,000 and in 1999 is likely to generate income over and above its running costs.

Many students use Counter Culture as an opportunity to carry out hands-on research and expand their understanding of the food system. The canteen has sought to engage the wider community of students through activities such as food mapping, and a through an awareness raising Eco-food day which presented information and panel displays on a variety of food issues.

The tensions the café faces - between affordability and food quality, between demand for more conventional foods and the desire to support sustainable, local alternatives and between the convenience of disposable crockery and their decision to use non-disposables - reflect many of the issues that the Faculty has to grapple with academically. The ultimate aim is to integrate the café more formally into the Faculty's curriculum and to develop stronger links with the regional food and agriculture community. The fact that the canteen closes for four months over the summer holidays makes this difficult but some Counter Culture staff have already gone on to initiate gardens and other food related projects in Greater Toronto. Counter Culture is also in the process of developing a community garden at York.

Europe and the rest of the world. The Centre is exceptional in aiming to work in secondary schools; most food related activity in the UK is with primary-school age children. In later years examination pressures make it difficult for teachers to find room for non-statutory teaching. One lecturer at the University of London's School of Oriental and African Studies,[2] has however used his allotment site to introduce students to Participatory Rural Appraisal (PRA) techniques; students carrying out the exercise gathered information about the plot holders, what they grew and the various cultivation methods used. University students at the University of East London have helped to develop the Becontree Organic Growers' site and post-graduate students at the Royal College of Art are designing a city farm near an estate in South-East London.[3]

Experience from overseas suggests there are real educational benefits to be gained from incorporating food growing into secondary and further education. For instance the US Government-funded Cornell Cooperative Extension Service has developed a hydroponics project for 14-17 year olds

which relates food production to the teaching of maths, physical sciences, marketing and the sociology of food production. An evaluation of the project found that the young people showed remarkable improvements in applying maths, science, technology and marketing principles while their general attitude towards the sciences also improved markedly. Several of the first year participants returned as interns and peer educators during the second year.

Beyond the school and college gates London is home to various other education-related food growing activities. One environmental organisation in Sutton runs a 'Beanstalk project' which introduces children to allotment gardening ***(see Project contacts)***. There are 16 Beanstalk groups, often involving parents as well as children. The groups are given a free plot, tools and seeds, and are mentored by an experienced gardener who helps them plan, plant and tend the plot.

City farms have enormous educational potential too. Each year, they are visited by thousands of children - from between 3,000 and 12,000 per farm, according to one informal survey of 5 city farms.[4] The tiny Freightliners City Farm in Islington hosts 180 class visits, involving 5,500 children, annually. Surrey Docks City Farm in South London, which sees around 150 yearly visits[5] has received overwhelmingly positive feedback not only from children but from teachers as well, who say that the farm and the educational materials it provides has helped with teaching a range of subjects.[6] Three of London's city farms (Dean, Vauxhall and Wellgate city farms) also make visits, with their animals, to schools. Unfortunately, many school children only come into contact with city farms on an occasional basis[7] so there is a danger that the experience ends up as little more than an enjoyable day out for the class. For farms to fulfil their potential, schools need to visit - and have the time to visit - regularly, so that pupils can observe and interact with the changing farm environment.

There are also a number of food related training schemes in London. Capel Manor, a horticultural and land-based sector training college on the outskirts of North London offers courses ranging from arboriculture, amenity horticulture and animal care to ornamental and commercial crop production; and at all levels, from general interest classes to BTECs. Since 1997 it has run a City and Guilds qualification (equivalent to NVQ3) in Organic Husbandry and Holistic Studies which has attracted interest (although mainly from hobby growers as opposed to those seeking work).[8] Capel Manor will also host a Federation of City Farms and Community Gardens' event in the summer of 1999 - ***Keep London Farming: a celebration of city farms and community gardens*** - signalling their growing involvement in sustainable food growing activities. In addition, Capel Manor tutors run an organic gardening course at Sunnyside Community Gardens in Crouch End, North London ***(see Project contacts)***.

There are also a number of horticultural training schemes for people with mental health or other problems. The Hoxton Trust in Hackney provides training for unemployed people, many of whom suffer from mental health problems such as alcoholism and drug dependency. Food production is not specifically part of its remit but many of the benefits the project yields would also apply to food growing schemes. Although the programme has not been evaluated in any structured way the co-ordinator has noticed significant changes in people who attend regularly, particularly in their dress, personal hygiene, time keeping, confidence and general behaviour. All these contribute to trainees' prospects of going onto future employment, either in related activities (such as parks departments of local authorities) or in unrelated fields. The scheme has helped in other ways too. Some of the participants have literacy problems but as they become more interested in the gardening work, they are motivated to look up information in books. At breaktimes, trainees often sit together and do the newspaper cross-word, which helps their reading and writing abilities. The Trust also provides a space where the many Turkish participants can mix with English speaking trainees, so improving their English language fluency.

Others, too, have made a link between horticulture and language learning. Recently, Spitalfields City Farm was awarded funding through the Department for Education and Employment's Adult and Community Learning fund (see below) to run an English language course for Bangladeshi and Somali women. The teaching will be partly classroom and partly site-based and will also include health education.

There are also several horticultural schemes for people with learning difficulties, such as Roots & Shoots in South London and the Harington scheme in North London (see case study). These schemes enable trainees to learn and develop new skills and may, depending on the their level of disability, lead to future work. The SHARE Community ***(see case study)*** for instance, located on the grounds of a psychiatric hospital, provides horticultural and other training for people with various, and often very severe, disabilities. While only 4 out of 15 participants managed to go on to gain employment in 1998, regular engagement in purposeful activity has yielded other benefits. Punctuality, dress and behaviour improve dramatically. Participants find the gardening work very therapeutic and the in-patients at the psychiatric hospital also take pleasure in visiting the site. Moreover, the scheme has helped raise awareness of environmental and health issues, prompting, for example, discussions about genetic engineering, and the co-ordinator also feels that it has encouraged some participants to think twice about their food choices when they buy from the supermarket.

The potential

School learning

The school curriculum is already tightly structured and teachers often have very little spare time left over in the school day for more holistic activities such as food growing. There is no legal requirement for schools to provide teaching in food growing and only a limited requirement (for younger children) for them to provide food and nutritional education. As a result, a new generation of people are growing up lacking the basic ability to feed themselves.[9]

The UK business sector demands an increasingly specialised, information technology literate workforce. Government is responding to this need by seeking to involve business in schools and promoting IT in the classroom. Some fear that this emphasis on work-relevant learning may undermine the 1988 Education Reform Act's legal requirement that the school curriculum should be 'balanced and broadly based' to promote 'the spiritual, moral, cultural, mental and physical development of pupils.'

However, there is certainly interest in the broader perspective. One survey shows that nearly two thirds of teachers believe that their school or college devotes too little time to environmental education, with 70% feeling that environmental education should be mandatory.[10] The main reasons they give for not doing more are time constraints (83%) and the pressure to meet exam and course work requirements (74%). Nevertheless, 700 out of around 2500[11] state maintained schools are members of Learning through Landscapes,[12] a charity devoted to greening and using school grounds for educational purposes and community benefit. Food growing could be a natural next step, and indeed Learning Through Landscapes is often approached by schools who want advice on growing food. The organisation produces a range of materials to help schools link the school grounds with curriculum requirements, some of which (such as the School Orchards pack) deal specifically with food growing activities.

The potential benefits of food growing in school education could in fact be immense, by facilitating learning in a variety of core disciplines, from maths (plot measurement, calculating yields) to science (plant evolution, plant biology, soil structure) to history (the role of food in trade and conflict) to language (diaries, descriptions of farm activities, food and farming in literature). Indeed, food growing activities could even link with information technology and business; computers could be used in designing sites, typing garden newsletters and articles and preparing maintenance rotas, while pupils could develop the food growing activities as a business, marketing fresh vegetables and cooked foods to parents and the local community. Groundwork Black Country, for instance, has helped children design a show garden of fruit and vegetables using a computer package originally designed for improving business landscapes. Some schools -

mainly in rural areas outside London - in fact have school farms which are used by teachers as part of the educational process.[13]

Some Education Business Partnerships ***(See Glossary)*** are already supporting action to improve health and the school environment. For instance, Hackney's Education Business partnership scheme part-funds a Learning through Landscapes post in the borough while the Barnet partnership funds a breakfast club in one school. These partnerships could play an important role in developing and supporting food growing projects.

The new curriculum

There may also be opportunities when the revised national curriculum comes into effect in September 2000. In 1998 Government established advisory groups to examine the possibility of incorporating citizenship education, personal, social and health education (PSHE), sustainable development education, and culture and creativity into the future curriculum. Each group has now submitted a report to the Minister for Education as well as to the Qualifications and Curriculum Authority (QCA) - the non-departmental public body responsible for advising Government on all aspects of the school curriculum. The QCA's Preparation for Adult Life Group, convened in 1998, has assimilated the findings of the individual groups and submitted an advisory report to the Secretary of State for Education.

The Citizenship Advisory Group, headed by Professor Bernard Crick, recommends that citizenship should be a statutory entitlement for all pupils aged 5-16, requiring both separate learning time and its incorporation into other subjects.[14] The Group's threefold definition of citizenship education includes - 'learning about and becoming helpfully involved in the life and concerns of their communities, including learning through community involvement and service to the community.' While the nature of this involvement can be very diverse, community food growing activities might be one approach, and could also help further PSHE and Sustainable Development education.

Although the PSHE Group's conclusions are not publicly available, the Sustainable Development Advisory Group recommends that sustainable development education is a 'function of the whole school curriculum and thus requires the engagement of all subjects.' It outlines seven areas which such education should cover:[15]

1 the interdependence of society, economy and the natural environment, from local to global
2 citizenship and stewardship - rights and responsibilities, participation and cooperation
3 the needs and rights of future generations
4 diversity - cultural, social, economic and biological

5 quality of life, equity and justice
6 sustainable change - development and carrying capacity
7 uncertainty, and precaution in action.

Food growing activities could catalyse discussion on across all seven areas, on subjects ranging from the globalisation of the food and agriculture economy and the impact of individual's food choices on the environment, to the value of biological and cultural diversity to our long term survival.

The advisory group also recommends that sustainable development should have an impact on 'whole school development, including whole school ethos, curriculum, pedagogy, organisation and community links, emphasising participation and consistency within and between these aspects.' A sustainable 'whole school' approach might include examining the catering system (where does the food come from and how can food be sourced more locally?), pupils' diets, the potential of the school grounds for food production and working together with local food growers or projects.

There are already openings within the present curriculum structure. Learning about food growing could even take place during primary schools' controversial literacy hour. The need to fit yet another statutory requirement into an already full curriculum has meant that so far it has squeezed out some non-statutory activities, such as visits to city farms and community forests.[16] However, some schools are beginning to realise that they can use the literacy hour to read about environmental topics, and it is likely that, as schools become more familiar with the new requirements, they will seek ways of introducing other kinds of learning into this time. As such, literacy hour could provide a useful time for children to learn about food and food growing and it is very likely that voluntary organisations such as city farms, who already have experience of producing curriculum-linked materials, will in time be developing appropriate reading materials.

There is further potential for more imaginative approaches to learning within the piloted Education Action Zones ***(See Glossary)***. Partnerships between schools, parents, business and community organisations could, for instance, lead to a school developing an organic food growing and marketing project with help from local environmental organisations and food retailers. This would have the added advantage of furthering the aims of the National Healthy Schools Scheme ***(see Health)***.

Learning for all

Government has made a commitment to widening participation in learning. To attract a further 500,000 or so people to further learning, the Comprehensive Spending Review allocates an extra £725 million to further education colleges. Central to Government's education strategy are the proposals contained in its consultation paper ***The Learning Age*** - an

initiative to promote lifelong learning for all. This stresses the value of learning not just as a route to employment but because it 'helps make ours a civilised society, develops the spiritual side of our life and promotes active citizenship.'[17] This broad and inclusive approach is further articulated and endorsed in associated reports, such as the Further Education Funding Council's Enquiry into learning opportunities for people with disabilities[18] and the Kennedy report on widening participation in further education.[19]

Although much of the cash boost will go to towards developing standards and improving facilities, some has been earmarked for more community based learning. For instance Government has given local authorities £9 million[20] for 1999 - with the promise of extra money in further years - to develop Lifelong Learning Development Plans. These set out local authorities' strategies for widening participation and improving standards in adult education, the aim being that they approach the issue both cross-departmentally, and in partnership with community organisations, in order to attract more people and provide courses beyond the college doors. Community food growing organisations could - and some already do ***(see Porlock community nursery, Healing Gardens, Harington Schem, Surrey Docks City Farm, Proper Job Co-op and SHARE Horticultural project case studies)*** - have a key role to play as course and training providers.

Another pocket of opportunity lies within the Adult and Community Learning fund. This three year £15 million grant encourages broader participation in learning by promoting partnerships between community organisations, business and public institutions. Spitalfields City Farm (see above) has already benefited from this fund. In addition, area based schemes such as New Deal for Communities and the Single Regeneration Budget emphasise the importance of training and education within the context of broader community involvement.

The new emphasis on working ***with*** the community rather than dictating what it is that communities ***ought*** to want means that local authorities are often highly responsive to community requests for particular courses. Tower Hamlets adult education services[21]is broadly amenable to the idea of funding food growing courses, perhaps through a city farm, and given sufficient demand (10 or more people). Community workers within the borough have also pointed out that some land is available (including a now overgrown community garden) within the grounds of some of its community education centres ***(see Bringing it all together)*** which students attending gardening courses could develop.[22] One of the youth workers has already involved young people in growing plants.

Furthermore, there is already fairly developed basis on which food growing activities could build. Many adult education institutions offer a range of gardening courses and although these are often of the 'learn to make a hanging basket' variety, there is certainly scope for broadening the focus to

include classes in, say, organic gardening or permaculture. So too, there are a number of horticultural training courses in London and although not all of these focus on sustainable methods, it is perfectly possible to adapt mainstream courses to embrace these principles.[23] In any case, there are signs that interest in more sustainable approaches is growing. Around 10-15 permaculture courses are held each year in London while Westminster Adult Education Service will be running a course in Autumn 1999 called 'Where does your food come from?' which examines a range of issues including local food links, sustainable agriculture, health and nutrition and so forth.

Learning for work

Despite the broad definition of learning set out in ***The Learning Age,*** many initiatives are simply geared towards equipping people with the skills to fuel the mainstream economy, particularly those in IT, business management and other 'conventional' areas of work. While these are vital to the development of a modern economy, bellies will always need filling and arguably, society's ability to feed itself without wrecking the environment on which it depends is equally fundamental.

Besides, sustainable agriculture, urban and otherwise, is not about remaining in the past or 'dumbing down' work opportunities by providing low-skilled manual jobs. On the contrary, this kind of food production requires growers to juggle with ever shifting and complex environmental variables; the limitations and new possibilities of a city pose extra challenges. Furthermore, all successful food businesses, environmentally benign or otherwise, require management and often IT skills. By promoting urban food production, Government could have its techno-cake ***and*** eat it.

Several opportunities exist within the existing policy framework. One is the £15 million University for Industry programme (UfI), a public-private partnership which provides a package of IT and other education opportunities both for people in work and for those seeking work. Part of UfI's aim is to assist the development of specific industrial sectors, of which environmental technology is one (alongside automotive technology, and the distributive and retail trades).[24] Food growing is hardly part of the plan as it stands but this mention of environmental technology does signal recognition of the fact that the environmental industry is one of the fastest growing sectors in the world.[25]

There is also potential for developing food growing skills through the Environmental Task Force (ETF) which places unemployed people with environmental organisations, enabling them to learn a range of skills, practical and otherwise. In many cases, environmental organisations are managing the provision of such placements.

The scheme is very new and there are as yet only a few links with food growing. Nevertheless there are ETF trainees working in some of London's city farms, including Dean, Vauxhall and Spitalfields. The Earthward, a sustainable agricultural scheme in the Scottish borders, the Wren's Nest Estate in the Black Country and Groundwork Thames Valley in Slough, also all have ETF trainees who carry out food growing activities.

At the moment the ETF is not a popular choice. November 1998 figures for London show that of 4509 people on one of the four Gateway options, only 285 took the ETF route, compared with 640 voluntary sector and 770 subsidised work placements. By far the most popular was the full time education option (2814).[26] Nevertheless, the voluntary sector option (VSO) figures compare reasonably well with the subsidised work ones, suggesting that there is certainly interest in socially beneficial activities; the problem may simply be ETF's 'dig a ditch' image. One possibility might be for food growing organisations to align themselves more with the VSO, stressing the social focus of their work. Another might be to link food more closely with educational opportunities by developing more accredited food growing and food related courses.

The newly developing intermediate labour market (ILM) is another option to consider. Both the Joseph Rowntree Foundation[27] and the Government's Social Exclusion Unit[28] have highlighted the potential of intermediate labour markets. As developed by the Wise Group in Glasgow, this model provides a training and waged-work programme which includes induction, work experience in a number of fields (eg. home insulation, central heating systems, home security and environmental improvements) and high quality accredited training. Although this approach is more expensive than many mainstream training programmes, it has been shown to be significantly more successful in placing the long-term unemployed in full-time work. The scheme is now spreading to other cities in the UK, including Newham ,where there is a branch of the Wise Group. The piloted Employment Zones are already testing out this ILM model and the Centre for Social Inclusion is currently developing a network of ILMs around the country. Food growing and the development of small food related enterprises might fit in well here.

There are also opportunities for developing more horticultural training schemes for people with disabilities. Although government thinking is moving away from sheltered work schemes and towards supported jobs in the open workplace, there will always be a need for the former. Jobs, supported or otherwise, will never be possible for all, but productive and fulfilling activity can be. Promisingly, Government has recognised that the current funding system places too much emphasis on hard 'outcomes' such as qualifications and jobs obtained and less on trainees' individual progress from their original starting points.[29] Horticulture offers people the

opportunity both to develop work-relevant skills and to pursue a rewarding activity.

Taken together these policies and other developments could enable London to provide training and work opportunities for people, of all cultural backgrounds, both urban and rural, in horticulture and associated industries. Such training could help revivify areas both within and beyond London ***(see Economic development)***. These people could, in turn, and with the right level of support, establish themselves as smallholders, or small scale food processors in the inner city, the urban fringe and in rural areas. In this way, London and other cities could go some way towards meeting its food needs while creating environmentally and socially sustainable training and employment opportunities.

This is a particular need at present. The rural agricultural sector is ageing. Only 2% of the population is directly involved in farming[30] with a further 60,000 people in commercial horticulture.[31] Faced with low wages, inadequate housing and local facilities, and ever scarcer employment opportunities, younger people are moving to the cities in the search for decent jobs and living conditions.[32] A living, working, countryside is fast becoming a thing of the past, replaced by a monocultural wilderness of large scale, capital intensive agri-business interspersed with themed heritage 'leisure experiences' frequented by wealthy, car owning urban tourists and commuters. Neither the reality nor the image appeals to many young people.

However, any training schemes must go hand in hand with job opportunities. People do not want yet another training scheme - they want a job.[33] There is little point in developing a training package without also providing start-up support for small food growing and related enterprises, as well as access to the necessary land. At the same time, agriculture needs to revamp its image entirely. Effective promotion must present urban agriculture as an industry with a future, one which combines idealism with pioneering innovation and genuine financial opportunities - a sector for the much talked-about social entrepreneur to engage with and make their own.

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8) Sustainable land use

Farming looks mighty easy when your plow is a pencil, and you're a thousand miles from the corn field.

Dwight D. Eisenhower, 1956

Summary

Food can be grown without "land" as we traditionally conceive it, for example on roof-tops, in window boxes and in soil-less systems. However, land remains central to the future of urban agriculture. The most space and, therefore, potential, probably lies on the urban fringe, though complex ownership structures and planning policies inhibit its development for this purpose. Yet built up areas can also yield useful growing spaces, such as parks, housing estates, temporarily vacant land and, of course, the type of food growing land most people think of – and which remains invaluable – allotments. Many people worry that urban land will be too contaminated to produce food safely, and the problems – particularly the cost of soil testing and remediation - should not be underestimated. But there are a number of low-cost ways to solve (or avoid) the problem, and much London land is just as suitable for food growing as anywhere else.

Key facts

- A number of Planning Policy Guidance notes could be used to protect and enhance land for growing food in London
- Around 14% of Londoners already grow some food in their own gardens, and free or low-cost advice and equipment could increase this substantially
- Raised beds, using barrier hedges and mulches, careful selection of crops, and thorough washing of produce can avoid most contamination risks, which are lower than most people think in many areas

The current situation

Food is grown on all types of land in London, from urban greenbelt to back gardens, allotments ***(see Dartford case study)***, parks ***(see Growing Communities case study)***, vacant and temporary patches of land ***(see Cable Street case study)*** and even in the grounds of hospitals ***(see SHARE community case study)***.

The availability and quality of land are fundamental to any discussion of agriculture. At the moment nobody knows either how much open space

there is in London[1] nor if and how greatly it is contaminated. Local authorities, for instance, may know how much of the borough's land they own but usually no more than this.[2] To remedy the situation the London Planning Advisory Committee (LPAC) has undertaken, and nearly completed, a survey of London's open spaces. Invaluable though this will be, it will not cover sites smaller than a hectare and so effectively excludes many community food growing areas. Neither will it help identify land which could potentially be cultivated.

Government advice on London's spatial development is currently set out in its Strategic Guidance for London Planning Authorities.[3] There is also room for local planners to act on advice set out in national Planning Policy Guidance notes where these reflect new thinking. The future Mayor's Spatial Development Strategy, which will supersede the Strategic Guidance and reflect national Planning Policy Guidance, will have to consider 'the environmental, economic and social implications of its strategies.'[4]

The potential

The urban fringe

The urban fringe has increasingly become London's dumping ground, home to activities such as sand and gravel pits, refuse disposal sites, kennels, equestrian centres, golf courses and driving ranges, and facilities for noisy sports as well as car breaking, horse keeping, car boot sales, Sunday markets, car storage, motorcycle scrambling and caravan sites.[5] Agricultural enterprises face additional problems such as vandalism and fly tipping. This is sometimes so severe that farming becomes unprofitable and agricultural land is left to deteriorate.[6] These obstacles need to be addressed and, where necessary, removed because urban agriculture could potentially yield a far greater range of benefits than many of the other uses of such land.

The land ownership issue makes the development of a comprehensive strategy a complicated matter. Land may be owned by one Council but managed by another which in turn contracts out the management to a separate company who leases the land to individual tenants.[7] Alternatively the land might be owned by private individuals, private firms or bodies such as the Corporation of London. Faced with this patchwork of ownership, the logistics of devising a coherent policy framework - especially in agriculture, itself a murky palimpsest of schemes and policies - are tortuously complex.

However, policies do exist - both national and regional - which support a more environmentally productive approach to the area surrounding London. Planning Policy Guidance 2[8] lists the uses of greenbelt land as being to:

- provide opportunities for access to the urban countryside for the urban population
- provide opportunities for outdoor sport and outdoor recreation near urban areas
- retain attractive landscapes, and enhance landscapes near to where people live
- improve damaged and derelict land around towns
- secure nature conservation interests; and
- retain land in agricultural, forestry and related uses.

Sustainable food production could provide for, or contribute to all the uses listed. Government Guidance[9] on Green Belt and Metropolitan Open Land in London ***(See Glossary)***, states that boroughs should 'encourage the maintenance and support of agriculture as a major economic activity in the Green Belt (reflecting the advice of PPG2and PPG7[10] on retaining and protecting the best and most versatile agricultural land).' It also advises them to:

- set out strategic policies for the long term future of the Green Belt;
- include land use policies which support efforts to improve the nature conservation and landscape character and quality of the Green Belt and MOL
- include policies and proposals which exploit opportunities for the outdoor recreational use of the Green Belt and MOL, including increased public access where this does not conflict with other environmental objectives.'

Again, urban agriculture could play a part in achieving all these objectives. The Guidance also notes the value of green chains ***(See Glossary)*** noting that they can serve as wildlife corridors, thereby enhancing local ecological diversity. Allotments and urban fringe farms could be part of these networks of ecological diversity in London.

The London Planning Advisory Committee - due to be assimilated into the new Greater London Authority - argues that the 'value of agricultural land in contributing to sustainability is clear.' It points out that 'Reduction in the amount of travel is one of the basic tenets of sustainability. This can apply equally to goods as to people. Therefore the distance that food has to travel from farm to shop to consumer should be reduced if possible. In order to achieve this, agricultural land within and adjacent to London needs to be maintained in productive use, particularly the land of highest quality.'[11] It also warns that 'Once agricultural land has been sterilised by built development or mineral extraction it is generally lost to agricultural production.[12]

Some local authorities carry out conservation work and environmental activities on the urban fringe. These have great value in their own right

but there is no reason why sustainable food growing activities, including horticulture, mixed farming and orchard cultivation, should not form part of the plan.

Built-up areas

Land is scarce in London ***(see London: an introduction)***. It is also very expensive and urban agriculture is certainly not the most immediately lucrative way of using it ***(see Economic development)***. Nevertheless since green and pleasant cities attract investment there are sound economic arguments for preserving London's open spaces, as well as environmental and social ones. Furthermore, Government strategic guidance advises that in 'meeting London's housing need … full account must be taken of the value of existing public and private open space. The proper provision of open space should be part of planning for new residential developments, especially in areas of deficiency.'[13] PPG3 reinforces this by stating that Government 'attaches particular importance to using 'greening' to promote the quality of the residential environment' and wishes to see the retention of existing and provision of new open space, the planting of trees and grassed areas, and recreational provision within urban areas.[14]

The future Mayor will have to prepare a Sustainable Development Strategy for London that considers environmental and social as well as economic factors. Sustainable food production can integrate and contribute to all three. Of course it is both unrealistic and undesirable to suggest that large parts of London be ploughed up for agriculture; this would run counter to the many social and environmental arguments in favour of dense, compact cities. However, urban agriculture does not have to compete with housing and other forms of development; many food growing activities can and do squeeze into those pockets of land which are too small for other uses. A strategy to promote food could in fact, make better use of land which has already been designated as green space, but which is neglected or underused and in need of a face-lift.

Parks

Parks are one example. Although often well used and valued, inadequate funding and poor management[15] has turned some of them, or some parts of them, into sometimes dangerous and often unattractive no-go waste areas. There is real potential for turning them into productive gardens yielding food for local consumption, as Growing Communities is already doing ***(see case study)***. Community groups in Manchester are planning to develop orchards in two parks.[16] It is essential however that the local community supports and manages such schemes, otherwise they can be resented as an appropriation of public space.

Housing estates

Land surrounding housing estates also has food growing potential and there are a few initiatives already underway across the country ***(see Community development)***. Back gardens are another major resource. 13% of the population (14% in London) already grows at least a few herbs and the odd tomato plant and, although it is up to individuals to cultivate their gardens as they please, public campaigns by local authorities and the new London wide authority could encourage more people to use them for food growing. Such campaigns might include providing written information and telephone advice 'hotlines' (there is a compost hotline in Vancouver, for instance), cheap or free compost bins, manure and seeds, and the clearance of overgrown gardens. The latter could be carried out by, for instance, offenders undergoing community service - this in fact already takes place in some parts of London, for example at the Dartford Road Allotments ***(see case study***). There may also be opportunities for small scale commercial cultivation, providing that planning permission were received and health and safety standards met. On a more informal basis, those unable or unwilling to do their own gardening may be prepared to allow others to cultivate their gardens in return for a share of the produce.

Allotments

A food growing strategy would of course also include allotments and their promotion. Many councils are under tremendous pressure to sell sites off to developers in order to generate much-needed income and meet housing needs. There is therefore a risk that Councils may neglect their duty to promote and maintain sites either because they have other more urgent demands on their time and money or as a calculated move to reduce public demand for them. Poorly managed and advertised sites are unlikely to attract or keep plot holders, enabling Councils to cite lack of demand as justification for putting the land to other uses. Once green space is lost, it is lost for ever, with potentially serious consequences both for London's wildlife and the wellbeing of its people, for whom such green spaces are a vital escape from the concrete and the tarmac. It is, moreover, all the more important that these statutory sites are promoted and protected, given the rate at which privately owned sites are disappearing ***(see London: an introduction)***.

However, Government's Planning Policy Guidance 3 consultation document does note that 'open space should … be protected against pressures for development, in particular allotments, which are important to local communities both for recreation and the provision of green spaces in urban areas' while urging that 'local planning authorities should 'ensure that the retention and planting of trees, landscaping and other greening is an integral part of new development.'[17] In addition, following Government's Inquiry into the future of allotments some authorities, including Ealing in

West London, have modified their policy of selling allotments and are instead integrating them into their Local Agenda 21 processes.

'Meanwhile' land

Food growing on interim land is also an option - a shifting cultivation for the twenty first century. 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 and Boroughs should consider whether they should be protected.'[18] Land, however, can bring out very strong emotions in people and a land owner leasing to the community on a short term basis always risks encountering spade-waving opposition when it is time for the bulldozers to move in. In addition, although councils are often amenable to a community using unallocated land for gardening, they do need to be sure that the project is sustainable. They do not, understandably, want to be left with a half-dug mudbath once the community's enthusiasm has died away.

In time, food growing, including vegetables, fruit trees and shrubs, could play a central part in an overall greening strategy which includes green walkways with flowers along the route – sustainably managed - and in which food growing is not as an isolated and discrete 'project' but integral to a green and living cityscape. In this way food growing could be accepted even by those unsympathetic to the idea of vegetables flaunting themselves in public, because they are simply part of development pattern which, for the most part, is entirely uncontroversial. Who objects to flowers?

Soil contamination

Planning Policy Guidance 23 advises that 'where practicable, brownfield sites, including those affected by contamination should be recycled into new uses.' Soil contamination is a serious 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.[19] In London, nearly 60% of total vacant industrial land (over 500 hectares) is contaminated.20 It may also be possible that some allotments, back gardens and other pockets of land where urban agriculture could and does thrive are too polluted for safe food production ***(see Health)***. The problem is that nobody really knows.

Part IIA of the 1990 Environmental Protection Act (and inserted by Section 57 of the Environment Act 1995) requires local authorities to identify contaminated land and to secure its remediation, with the polluter, if known, responsible for cleaning it up. The environment agencies have responsibilities for providing detailed advice to local authorities and also for dealing with some of the more difficult sites.[21] The London Development

Agency will take over English Partnership's responsibilities for remediation work in London.[22]

Until recently local authorities have not had any extra funding for them to carry out their duties. The 1998 Comprehensive Spending Review however, allocated local authorities £50 million to develop inspection strategies, carry out site investigations and take appropriate action.[23] It also granted the Environment Agency an extra £13 million over three years to help implement the new European Directives and to enable them to advise on and, where necessary, remediate contaminated land.[24]' An additional £45 million over three years was earmarked for the actual remediation work.

Most recently, Section 57 of the Environment Protection Act 1995, to be implemented on 1 July 1999, will give the Environment Agency and local authorities new duties and responsibilities for dealing with land contamination. According to analysis done for the Federation of City Farms and Community Gardens, new Contaminated Land Exposure Assessment guideline values will be introduced, and local authorities have 15 months to develop, and lodge with the Agency, a copy of their strategy to deal with contaminated land in their area.

While these are very positive measures, the money allocated is not nearly enough to deal with the problem and in any case remediation will take a long time. Moreover, the standard of remediation which urban agriculture requires is high and therefore expensive. Funding for food growing will have to compete with the many other more commercially attractive development options which do not require such thorough remediation. In addition, the very small pockets of land where food growing takes place are unlikely to be priorities, either for investigation or for remediation. If, then, community organisations want to ensure the land is safe enough to eat off they will probably have to test and clean it up themselves, and soil testing can be prohibitively expensive for many community groups.

Soil testing

Many innovative food growing schemes desperately need adequate information in order to carry out the necessary soil testing work. This is often difficult to come by and soil tests can be extremely expensive. The planned Urban Growing Spaces initiative in Sandwell is currently on hold, because of fears that the land is seriously contaminated. Depending on the soil test results, and the extent and severity of the problem, the initiative may have to be modified or even abandoned. Growing Communities' experience has, however, been more positive. Hackney Council has tested one of its sites (the others are located in Victorian parks and, as such, are unlikely to be contaminated) and, although the land itself is contaminated, as suspected, the first set of tests show that the vegetables grown there have not taken up the contaminants. This is largely a result of the remedial action the project has taken (see below). Growing Communities is now

applying for certified organic status, after which it will sell the produce grown through the box scheme.

Tackling the problem

The experience of Growing Communities and others suggests that there a few simple measures which can address, or at least mitigate, the soil contamination problem, particularly for smaller, more manageable sites. For instance, lead pollution is mainly air borne (although exterior lead-based paints can also wash into the soil[25]) and, as it tends to accumulate on the surface of vegetables, can be removed by washing and peeling. Some experts recommend planting gardens, where possible, more than 45 metres away from the main road[26] or planting hedges along busy roads to protect produce from some of the airborne lead. Other barrier plants to grow include sunflowers and morning glories. A barrier layer of mulch can also prevent lead getting into the soil. The right choice of crop is also important. In general, the less surface area exposed, the safer the plant. Fruiting crops such as beans, tomatoes, peppers, squash, cucumber, and melons are better than leafy crops such as kale, chard, lettuce, celery, mustard, spinach and herbs - a pity, as these are often very easy to grow. However, it is important to remember that years of successful campaigning by organisations such as the Campaign for Lead Free Air now means that air borne lead pollution is declining.

Contamination by soil borne heavy metals requires other measures. Incorporating plenty of compost can reduce heavy metal uptake ***(see Environment)*** as can increasing the alkalinity of the soil to 6.5 or more by adding lime. Growing Communities, for instance, has taken both steps with the addition of compost, spent mushroom compost and additional soil bought in from an organic supplier. The Ministry of Agriculture, Fisheries and Food is currently examining vegetable uptakes of nine potentially toxic elements on twelve urban and rural allotment sites in the UK. The results, due in the Autumn of 1999, should prove very useful, not only in determining just how risky it is to eat urban grown produce, but by indicating in more depth the types of vegetable that are safest to grow.

Where the soil is very severely contaminated, container planting in a soil-less medium such as compost is the safest option. A few raised beds built with scrap materials and filled with home-produced compost is virtually free, although anything more extensive than this might require more thought and investment. Environmentally sensitive hydroponics, for example, might be appropriate for larger scale operations. The Bromley by Bow Centre in Tower Hamlets has decided to do a little lateral thinking instead. It is examining the potential for a food growing project in nearby Kent which will supply the Centre's café and still involve Tower Hamlets residents in the cultivation work - a neat reinterpretation of the long standing East End hop and strawberry picking tradition.

These DIY measures can help, but there is, nevertheless a desperate need both for cheap soil testing and for comprehensive advice on low-cost, low-tech remediation. Some organisations are starting to meet these needs. The Elm Farm Research Centre, Federation of City Farms and Community Gardens, and ***Gardening Which?*** are all working to develop soil and compost analysis and advisory services for community organisations. However, in cases where nothing but high-tech, expensive solutions are possible, statutory organisations should consider the many environmental, social and economic gains to be had from urban food growing.

There is also a twist to the contamination story. An overly zealous approach to testing could make a rope by which community groups hang themselves. Local food growers could suddenly face the prospect of eviction from much loved community gardens and allotments by property developers, on the grounds that the land is 'a health hazard.' While undoubtedly an issue, if urban food growing is ever to be treated with the seriousness it deserves we should be careful not to throw the baby out with the bathwater.

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9) How much could London produce?

The truth is rarely pure, and never simple

Oscar Wilde, ***The Importance of Being Ernest***

It is probably impossible to calculate accurately how much food London could produce, given the multitude of complicating factors to consider. It depends for instance, on what policies are in place to support urban food growing and on practical issues such as soil contamination. The figures below are simply estimates of the proportion of various land types which could be made available given strong political will. The potential productivity is based on an estimated average yield per hectare supplied by those active in the community gardening/allotments movement.

The calculation is based only on fruit and vegetable production. Setting aside land for other uses, such as beekeeping or animal rearing would generate a different result. It should also be noted that the calculation does not take into account the potential yields from window boxes, rooftops, street fruit trees and many other areas where food could be grown.

It is hoped that, while very approximate, the figure might provide a starting point for discussion and further, more detailed research. Using a productivity level of 10.7 tonnes/ha drawn from research into allotment yields,[1] and the area figure given below, London could produce around 232,000 tonnes of fruit and vegetables. Taking the World Health Organisation's recommendation that we should eat around 0.5kg of fruit and vegetables a day (five portions), the amount potentially available would supply Londoners with 18% of their daily intake - roughly one of the recommended five portions a day.

Land type	**Land area**	**% for urban horticulture**	**area for urban horticulture**
Agricultural land	13566 ha	50%	6783 ha
Other green belt land	40034 ha[2]	20%	8007 ha
Allotments	831 ha	100%	831 ha
City farms	51 ha	25%[3]	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	14%[4]	5322 ha

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2 Total greenbelt area of 53600ha minus the 13566 of agricultural land already listed
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10) Conclusion

Let's all move one place on.

Lewis Carroll, ***Alice in Wonderland***

Opportunities for Change,[1] the Government consultation paper on sustainable development defines sustainability as:

'thinking broadly about objectives...not separating things out into economic, environmental and social compartments. It seeks to combine objectives to improve the overall quality of life rather than pursuing individual objectives - such as maximising short-term economic growth or improving some element of the environment - without regard to other consequences.'

Local, sustainable food production of the kind advocated here is a text book example of such holistic thinking, spanning and integrating economic, social, health and environmental issues. The evidence, patchy and incomplete though it may be, suggests that as the innermost ring of a series of 'food circles,' urban agriculture could make a significant contribution to a more sustainable food system, supplying London with fresh, seasonal, sustainably grown fruit and vegetables and other produce while creating jobs and promoting health. London could also develop links with sustainable agricultural enterprises in the surrounding regions, which would supply larger quantities of bulkier foods. Outer 'food circles' ***(see London: An introduction)*** would supply fairly-traded produce which cannot be grown in the UK, such as rice, coffee and bananas.

However, sustainable local food production is about more than this. It is a metaphor for social change. It can catalyse a new way of thinking about our society, our economic system and the environment on which we all depend.

This discussion has highlighted a number of national schemes and policies including Health Action Zones, New Deal for Communities, the Single Regeneration Budget, Education Action Zones, the Healthy Schools Initiative and Healthy Living Centres, as well as commitments on waste, transport, biodiversity and more, which could potentially support urban agriculture. In turn, urban agriculture offers the 'joined up solutions to joined up problems'[2] which this Government is so keen to see.

More specific to London, the new Mayor, when he or she comes into office in 2000, will have a 'statutory duty to promote sustainable development in London.'[3] This should inform all the Mayor's actions and responsibilities for:

- developing a Spatial Development Strategy which will consider 'environmental, economic and social implications'
- promoting the economy 'in a way which contributes towards sustainable development.'
- developing a comprehensive municipal waste, transport and air quality strategies
- developing a Biodiversity Plan outlining measures to protect London's species diversity
- preparing four-yearly State of the Environment reports
- promoting Local Agenda 21.

The Mayor will also have the power (but not the duty) to promote the health of Londoners.

There is a good deal of potential for developing and pursuing a sustainable food growing strategy within this context. Furthermore, the Greater London Assembly, which will advise the Mayor, will have the ability to investigate any subject it thinks appropriate - which of course, could include research into urban agriculture.

However, much depends on how these powers are interpreted. A comprehensive sustainable food strategy for London will require a complete rethink of our food economy, spanning the whole food chain, both in rural and in urban areas. This is unlikely to be forthcoming in the near future, given that national agricultural policies and the European Common Agricultural Policy do little to promote sustainable rural production, let alone urban food growing.

Moreover, the benefits of urban agriculture are neither automatic nor inevitable, and at this stage are barely emerging. The emphasis is still very much on 'could'. Rhetoric is cheap and all too often commitments to sustainable development are tacked on as an afterthought to mainstream policy making. This perspective, however, may be overly pessimistic. There is widespread recognition that the earth's resources are finite and that a longer term approach to their use is essential. The question is not whether we need to change our practices, but how fast. Urban agriculture can play a part in hastening this change. And there are positive foundations on which to build. An estimated 14% of Londoners already grow some of their own food. 30,000 Londoners are active allotment gardeners. Countless more participate in other gardening activities or visit city farms. A number of organisations highlighted in this discussion, small and underfunded though they may be, are already either growing food or working to promote urban food growing. Public awareness of food and environmental issues is growing, as can be seen in the exponential growth of the market for ***sustainable*** food.

These individuals and organisations are keen to work together to make progress 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.

- Policy makers at all levels and in all sectors – public, private and voluntary - to integrate food growing and its promotion into their aims and activities.

Such a strategy could yield a rich crop of benefits.

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2 Sustainable development, Opportunities for Change: consultation paper on a revised UK strategy, Department of the Environment, Transport and the Regions, 1998
2 Bringing Britain together: a national strategy for neighbourhood renewal, Social Exclusion Unit, The Stationery Office, September 1998
3 A Mayor and Assembly for London; the Government's proposals for modernising the governance of London, The Stationery Office, 1998

Recommendations

This section summarises the recommendations made throughout the report, grouped together under the following headings:

- Local statutory agencies
- The Greater London Authority
- National Government
- Business
- Voluntary organisations

Recommendations than encourage two or more departments or agencies to work together on particular policies are repeated under each department or agency heading.

Local statutory agencies

Environmental agencies

- in outer boroughs should incorporate and promote sustainable agriculture within the context of their countryside management strategies
- should promote food growing within local Agenda 21 fora
- should work with local allotment associations to consider allocating parts of allotment sites to organic gardeners, and to promoting sites with high vacancy rates as organic only sites
- should promote allotments in appropriate ways to different interest groups including unemployed and low waged people, the elderly, families and people of ethnic minority origin
- should promote self management of allotment sites and assist with examples of good practice
- should promote community and home composting and develop and/or support door to door organic waste collection schemes
- should establish on-site composting schemes in parks and use borough-composted waste in their landscaping activities instead of peat and other bought in soil improvers
- should aim to have 70% of households with gardens composting their waste by 2005. Measures to achieve this could include distributing free or subsidised composting units, advice and workshops, trained volunteers, composting hot lines and making available chippers to handle woody materials
- should develop composting schemes for market and other commercial organic waste
- should promote biodiversity by planting heritage varieties of fruit trees and edible plants in parks and streets

Economic development agencies

- in outer London boroughs should encourage farming tenants to convert to organic production by offering them rent rebates during the conversion period
- should develop the potential of local authority owned county farms as examples of best practice in sustainable agriculture
- should examine ways of stimulating and supporting local food production, processing, marketing and associated industries, including local food growing schemes, urban fringe farms, box schemes, farmers' markets, food growing equipment and seed companies, composting activities and so on.

Regeneration partnerships and community development

- should incorporate local food growing activities as a means of linking jobs, environmental improvement and health promotion into delivery plans for New Deal for Communities, the Single Regeneration Budget and other regeneration initiatives, provided that local communities support and participate in managing such projects
- should provide continuity of support, staff and funding for schemes

Purchasing departments

- should seek to purchase food as locally as possible, within a best value framework

Health promotion agencies and NHS Trusts

- should develop and support local food growing projects within the context of Health Action Zones, Health Improvement Programmes and other health promotion strategies
- should incorporate food growing into other initiatives including food coops, community cafés and exercise-on-prescription schemes and should consider making health-authority owned land available for the purpose
- should evaluate the mental and physical health benefits of food growing schemes and build upon their experiences
- should work with area based regeneration programmes to develop food growing projects as a means of linking health, jobs and environmental benefits

Education, training and employment agencies and Education Business Partnerships

- in outer London boroughs should maintain and develop Council owned farms as centres for training in sustainable agriculture and for educational visits.

- should fund informal and certified courses in sustainable food growing methods both on-site, at adult education institutes, and off-site at community run venues
- should link the Environmental Task Force and the Voluntary Sector Option elements of the New Deal for Employment to food growing schemes
- should promote food growing activities in first, primary, secondary and special schools and further and higher education colleges
- should work with health authorities and others to develop food growing activities as part of Healthy Schools Initiatives and in out-of-school activities such as after-school clubs
- should acknowledge, promote and support the educational work of city farms, community gardens and other relevant voluntary groups
- should consider funding 'grower in the community' educational outreach worker posts, to stimulate and support education related food growing activity

Land use and planning departments

- should specify the value of urban food growing in their Unitary Development Plans (or equivalent, after 2000)
- should continue to maintain allotments even in areas where there is no present demand and examine alternative uses for vacant plots, including community gardens and orchards and wildlife areas
- should consider using surplus land surrounding municipal buildings and housing estates for food growing
- should promote food growing activities to self managed housing estates, including offering incentives for composting
- should consider using neglected and underused pockets of land in parks for food growing
- should provide guarantees of land tenure for established community food growing schemes

The Greater London Authority

- should promote and develop food growing activities as part of its duty to promote sustainable development, within the context of its Spatial Development Strategy, as part of its specific responsibilities to improve the environment, manage London's waste and transport systems and protect the capital's biodiversity and through its role in promoting Londoners' health
- the London Development Agency should promote urban food growing, processing and marketing as well as the development of composting initiatives and compost markets, within the context of its responsibilities to improve London's skills base and regional competitiveness.
- should, as a Best Value authority, seek to purchase food as locally as possible

- should advocate organic food production on allotment sites, in gardens and on other urban land
- should promote composting of domestic, municipal and sewage waste
- should promote local consumer-producer links such as farmers' markets and box schemes
- should promote sustainable food related intermediate labour market employment
- should work with Thames Water Utilities to explore composting options as an alternative to the incineration of sewage
- should aim to have 70% of households with gardens composting their waste by 2005.
- should support and guide local authorities in their work to promote urban food production by endorsing the recommendations to local authoritities, above
- should undertake research into the most appropriate crops to grow in urban areas and into low cost testing and remediation options for contaminated land
- should undertake research into the potential for developing food related industries, from production through to processing, marketing and waste management, and marketing this with appropriate labelling

National Government

Ministry of Agriculture Fisheries and Food (MAFF)

- should work with the DfEE and the DETR to develop both training and work schemes for unemployed people in food growing, including by providing access to land and start-up funds
- should commission research into the most appropriate crops to grow in urban areas; into low cost testing and remediation options for contaminated land and into the potential for developing sustainable small scale food-related enterprises in production, processing, marketing and waste management
- should promote urban agriculture as an industry with a future, particularly to young people and people from ethnic minority backgrounds
- in partnership with the DTI and the DfEE, should support and promote small scale horticultural production, food processing, distribution and composting as part of a growing environmental industry
- should increase support for the horticultural industry, for small scale organic producers, and particularly for small scale organic horticultural producers

Department of the Environment, Transport and the Regions (DETR)

- Planning Policy Guidance should highlight the role of sustainable agriculture in enhancing the quality of Green Belt land and green urban areas and contributing to a sustainable transport policy
- should increase its composting targets for households with gardens from 40% to 70% by 2005
- should develop marketing standards for compost in partnership with MAFF and other relevant departments and non governmental agencies
- should research measures to treat sewage to standards suitable for food production
- should highlight food growing in future regeneration bidding guidances, including the Single Regeneration Budget and New Deal for Communities

Department of Trade and Industry (DTI)

- in partnership with MAFF and the DfEE, should support and promote small scale horticultural production, food processing, distribution and composting as part of a policy to promote civic entrepreneurship, and as one element of a growing environmental industry.
- should promote the development of markets for compost, and support science and technology to support sustainable, cutting-edge developments such low-input hydroponics
- should shift the focus Food from Britain away from promoting British food for export to promoting local foods for local consumption

Department of Health (DH)

- should include the promotion of food growing in its strategies for healthy eating, physical activity and mental health
- should acknowledge and promote the beneficial link between sustainable food production and health

Home Office (HO)

- should encourage businesses to support employee involvement in community food growing projects
- should encourage people of all ages and backgrounds to take part in community food growing activities, as part of government's policy on volunteering
- should encourage work in food growing and related industries as community service options for offenders and people on probation

Department for Education and Employment (DfEE)

- as part of its curriculum review should acknowledge the contribution of food growing to: core curriculum teaching, personal social and health education, citizenship education and sustainable development
- should work with MAFF and the DETR to develop training and work schemes for unemployed people in food growing, including by providing access to land and start-up funding.
- in partnership with MAFF and the DTI, should support and promote small scale horticultural production, food processing, distribution and composting as part of a growing environmental industry.
- should promote food growing through Intermediate Labour Markets

Department for Culture, Media and Sport (DCMS)

- should commission research into why people take up food growing, and the cultural barriers to food growing and explore ways to overcome them as part of a strategy to integrate sustainable development into mainstream culture
- should promote allotment and community gardening as a form of active recreation for people of all ages, including the elderly
- should examine ways of promoting sustainable food production, processing, marketing and waste management within the context of its leisure and tourism strategy, including by highlighting the potential of initiatives such as "floating food markets" on the River Thames

The Treasury

- should allocate funding to develop and implement a strategy for promoting and supporting sustainable urban agriculture, for example, by offering tax incentives to water companies to pay farmers to farm organically, thereby reducing the costs of cleaning up agri-chemical contamination of water
- should consider introducing new taxes so that food prices more accurately reflect the environmental costs of their production and distribution, such as a distance tax on goods vehicles and an agri-chemicals tax

Business

- should promote employee involvement in community food growing activities as part of employer supported volunteering schemes
- should support local community food-related projects with, among other things, funding, employee involvement, business advice and coverage and publicity in in-store and in-house magazines
- should seek to develop ways of sourcing food more locally, including where possible, from urban producers and in particular should seek to encourage organic food production

- should develop links with local suppliers for staff canteens
- should consider ways of using green space, rooftops and other areas on, in and around business premises for food growing
- should promote and support food related educational activities through their involvement in Education Business Partnerships

Voluntary organisations

- already running food growing projects should seek to broaden the range of people engaged in food growing activities, including by developing appropriate publicity material, providing decent working conditions and by working closely with organisations who represent the communities in question
- should provide New Deal for Employment training placements, perhaps by aligning themselves with the Voluntary Sector Option, rather than the less popular Environmental Task Force Option
- should offer volunteers on food growing projects accredited training opportunities
- should develop links with local food growers and food growing organisations as a means of sharing information, strengthening the collective voice of food growers and developing better ways of working and growing
- that do not run food growing projects should consider ways of developing food growing as a means of achieving their organisational aims and objectives, or of incorporating, where appropriate, food growing into existing projects

Appendix I

Theory and reality: the CityHarvest project

The CityHarvest project has had three main aims:

- to promote and publicise the potential benefits of urban agriculture to statutory, voluntary and private organisations in London, and to individuals
- to support existing and develop new food growing projects by providing 'first stop' information, and by raising these projects' profiles through our publicity work
- to research existing food growing activities in London, examine the contribution they make to the city's social, economic and environmental well-being and assess the potential for expanding and developing urban agriculture in London.

The practice has been somewhat different and our experiences, we think, highlight many of the obstacles which voluntary organisations face. The following paragraphs attempt to give an honest analysis of our methods and an assessment of our success so that others might avoid our mistakes and, we hope, build on our achievements.

Project management and funding

Throughout, the project has been guided by a working party, listed on the inside front cover. We sought to include representatives from a range of sectors: voluntary, statutory and business, as well as backgrounds: environmental, ethnic, health and economic (although see ***Development***, below).

Between working party meetings, project work has been managed by the co-ordinators of Sustain (formerly the National Food Alliance and SAFE Alliance), with reference to the Chair. The Chair has in turn reported progress to the Management Committees (formerly two independent Management Committees).

The project has run from September 1997 to May 1999 with the CityHarvest festival held in October 1998. It has been funded by the King's Fund, the National Lottery Charities Board, the Network Foundation and a charitable trust which wishes to remain anonymous. We also received grants from the London Boroughs of Tower Hamlets and Hackney. We are grateful for all their support.

Publicity

This work has included disseminating publicity, writing articles for publication, and other media work. However, our main efforts were focused on organising an autumn CityHarvest festival, which sought to bring together growers from across London to display, celebrate and sell their produce. The event was held on Sunday October 14th 1998 at Spitalfields organic market.

In many ways the day was a huge success, with a range of stalls displaying own-grown food, information stands, music, workshops and a cookery demonstration. Feedback from participants has been very positive and many of them were keen for us to organise a similar, larger event for 1999. An estimated 2000 people attended.

However, there were not as many stalls actually displaying food, compared with those simply displaying information, as we would have liked. There are probably a number of reasons for this. Larger formal voluntary or campaigning organisations have staff and funding, and know what attending such events entails. Small projects, of which many food growing schemes are representative, are not always that organised - indeed some are not 'projects' as such, but rather a loose community of people. Committing people who may be working on an entirely voluntary basis to attending an event can also be hard.

Also disappointing was that although we were in the heart of Tower Hamlets, less than a handful of our visitors were from ethnic minority groups. The reasons are probably various. Throughout we have found it extremely difficult to engage organisations representing ethnic minorities. Many of them are working on other issues which, understandably, appear far more urgent, such as racism, poor housing and so forth. Although there was some interest in our ideas, it has been difficult to take things further over the project's short lifespan.

Many of the people who came were probably casual or regular visitors to the Sunday organic market. These market visitors are on the whole, white, more educated, higher earning 'alternative' people - not low income Bangladeshis from the locality. In the future a more useful approach might also be a less ambitious one - working at a very detailed level with, say, just one organisation, rather than trying to make more superficial links with several.

Finally, more time would have helped tremendously. We received confirmation of funding for the festival (from the National Lottery Charities Board) in March 1998. Advertising for, interviewing and employing a suitable festival organiser (who had to fulfil earlier commitments first) delayed the process further. Working with small community groups is a lengthy process and in the future we will take this into account.

Development

The second element of the project has been development work; the aim being to support existing and develop new food growing projects by providing 'first stop' information, and by raising their profile through our publicity work.

Although the project had a London-wide remit, we initially intended to focus our activities on five London boroughs. This we felt would 'ground' the project in the practical issues affecting London's many and varied contexts. We started by contacting the boroughs of Ealing, Sutton, Tower Hamlets, Hackney and Kensington and Chelsea, because we felt that these boroughs spanned a broad socio-economic and ethnic mix, as well as a diversity of land types. However, our efforts to engage Sutton were not successful, as the borough's local authority and voluntary organisations felt that a less centralised approach would be more appropriate. Indeed Sutton is home to a variety of food growing activities, supported by the local authority and a thriving Local Agenda 21 group; as such it did not, arguably, need our additional support. To replace Sutton, we approached Hillingdon instead, which also has greenbelt land within its boundaries.

The plan was to bring together voluntary, private and statutory organisations in each borough, through a 'satellite working party.' These would meet regularly to develop and implement a food growing strategy for the borough. One member from each of the four satellite parties would also attend the overall CityHarvest working party.

The satellite party concept has not, on the whole, been successful. There are many reasons for this. Firstly, staff turnover in local authorities is extraordinarily rapid - officers were and are continually changing jobs and responsibilities. This meant that in no borough other than Tower Hamlets did our 'contact' officer remain the same, making communication very difficult. For example, one very supportive Councillor in Hillingdon decided to retire and, having lost his input, it became very difficult to engage others in the borough. In Hillingon, as elsewhere, many officers, faced with a range of responsibilities, felt that food growing was simply not a priority and often they were unable to attend meetings.

Secondly, arranging suitable meeting times is difficult. Council officers prefer to meet in the day whereas many community representatives and individuals have other day-jobs and are only available in the evenings. As a result different people attended the meetings each time. This not only necessitated a great deal of repetition but impeded progress. As such we were unable to move beyond the 'isn't food growing a good idea?' stage and onto the 'what do we want and how can we achieve it?' level.

Third was the money factor. We initially asked each local authority to contribute £5000 to the project, as we felt that this would give evidence of

their commitment and would also galvanise them to attend meetings so that they could see how we were spending it. None of the councils felt they could provide this amount although Hackney and Tower Hamlets donated £1,000 each, for which we are grateful. The problem was that with no money available for taking things forward and, it seems no time in which to do so, we soon reached a stalemate. There is nothing like money to galvanise action.

It should also be noted that we were unable to involve any businesses in these satellite working parties. This was true too of the main CityHarvest meetings which, moreover, grew more homogenous towards the end of the project's life. Having not successfully engaged business representatives, nor a wide range of local authority or other statutory sector employees, the working party was attended almost entirely by voluntary sector representatives by the latter stages of the project. These representatives, sharing some common culture and language, worked very well together and were invaluable to the project's development. Nonetheless, it was disappointing that we could not sustain the cross-sector partnerships that we had aimed for and which, we hoped, would have led to some productive cross-fertilisation.

As a result of these difficulties, we decided, towards the end of 1998 to abandon our ambitions of working in four boroughs and to focus more specifically on Tower Hamlets. We chose this borough mainly because the contact officer has remained the same, and has been consistently supportive of our work. Tower Hamlets is also one of the country's most deprived boroughs and one where urban agriculture faces many very practical obstacles. On the other hand it is home to a great deal of interesting and innovative food related activity. This mixture of challenge and opportunity is perhaps quintessentially urban, making the borough, in our view, an appropriate focus for our work.

Ironically, and perhaps predictably, it is only now (May 1999) that we are reaching the end of the project that we are beginning to find our feet and understand the area (geographically as well as metaphorically) and to have a clearer idea as to how to take things forward.

The research

This ***CityHarvest*** report seeks to test the arguments put forward in ***Growing food in cities*** and to assess how, and to what extent, urban food growing could make a contribution to London's social, economic and environmental sustainability.

From the very beginning however we have had to face a major obstacle. There is no rigorous, independent evaluation of any food growing projects, to our knowledge in the UK. Many food growing projects are operating on

shoestring budgets; in these circumstances, overworked staff have neither the time nor the funding to assess their effectiveness in any formal way, let alone to employ independent assessors. Some projects, too, are simply an informal group of friends who meet up to grow food and therefore have no wish to evaluate themselves.

Although some more formally constituted organisations have in fact carried out some form of internal evaluation these can by no means be described as objective. As is typical of the voluntary sector in general, food growing projects and organisations depend on grant funding for survival. They may indeed recognise and learn from their mistakes - many do. But they do not necessarily wish to publicise them to their funders. Despite many grant making organisations urging that applicants be honest about their experiences, often projects feel that the glowing write up may be their only passport to a future.

Even if funding for independent assessment were forthcoming it is, in fact, extremely difficult to evaluate the impact of community projects in general, including food growing activities. For a start, for some projects food growing is just one of a range of activities which participants do and as such it can be impossible to assign different 'effects' to different 'causes' or indeed, to separate cause from effect in the first place. It can also be hard to separate the reality from the potential. Some projects are doing excellent work given the circumstances but because they are so small and their existence so precarious, their impact is bound to be minimal from a larger perspective. Their value perhaps lies in what they point towards rather than in what they do. Many, too, have not been going for long and this can also make evaluation difficult and sometimes meaningless.

Furthermore, some would argue[1] that it is not necessarily the role of underfunded community projects to evaluate themselves. Instead, the onus should be on funders to prove that they are spending their money wisely. As such, it is they who should be responsible for this evaluation work.

Finally - and this is true of the project as a whole and not just the research element - the CityHarvest project mirrors, in many ways the problems which smaller organisations experience. Our funding has been hard won and the time we have had to spend fund-raising has detracted from the time we have spent actually doing what we set out to do. On the other hand, we have also undertaken some valuable work which we had not included in our plans, in particular making links with people outside the UK.

International connections

As well as informal email contact with urban growers in Canada, the US and elsewhere, CityHarvest has developed links with the Dutch non-governmental organisation, ETC Netherlands, part of ETC International.

ETC-Netherlands works in areas relating to sustainable agriculture, natural resource management and sustainable urban development, including urban agriculture. In 1997 it established a European Support Group on Urban Agriculture, whose members (including Sustain) receive quarterly bulletins on the subject. In addition, ETC-Netherlands is in the process of establishing a Resource Centre on Urban Agriculture and Forestry, and will be publishing a quarterly newsletter, bibliographies and resource databases as well as holding an annual e-conference on the subject.

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In 1998, ETC-Netherlands was commissioned by the German Government's German Agency for Technical Co-operation (GTZ) to produce an international 'reader' on urban agriculture, which examines urban agriculture in cities throughout the world. CityHarvest was one of the ten invited to submit a 50 page contribution to the reader, along with a map (included in this publication), slides and a poster presentation. It is also one of the four contributors invited to present their work at an international conference on ***Integrating urban agriculture in urban policies and planning***, in Cuba in October 1999.

The future

At the time of going to press, the future of the project is not clear. A number of suggestions have been made, such as integrating food growing into the development of healthy living centres, building on local authorities' "twinning" arrangements to make connections between urban food growers in rich and poor countries, and producing a "popular" version of this report for members of the public, rather than policy makers. All of these will depend on support from Sustain's membership and on funding. What is clear is that, thanks partly to this report and its predecessor, urban agriculture now features on the policy agenda.

References

1 Pauline McGlone, Barbara Dobson, Elizabeth Dowler and Michael Nelson, Food projects and how they work, Joseph Rowntree Foundation, 1999

Appendix II

Glossary

Arable farming: considered to be the production of cereal crops
Box scheme: box schemes create local food links between organic growers and consumers. Usually members of a scheme pay a fixed price for a mixed box of seasonal produce which is delivered to their doors or to a central distribution point. The advantage of such schemes is that the retailer is cut out, thus keeping prices low, and there is a guaranteed market for producers
Brownfield sites: urban land which has previously been developed. To reduce development on 'greenfield' or undeveloped land, Government policy is for 60% of new housing developments to be located on brownfield land.
BTEC: the Business and Technology Education Council is an examining board for further education.
Capacity building: the process of enabling people to develop the skills and confidence to own, direct and implement the process of change. While community involvement is about local people making decisions and acting to improve their area, capacity building is about helping people develop the necessary skills and structures with which to do this. The two are, of course, thoroughly interconnected - by getting involved in community activities, people develop their capacity to get involved more fully and ably, while people who have been enabled to develop their skills and confidence are more likely to get involved in community life in the future.
Community Supported Agriculture: a co-operative farming system in which the farm is jointly owned and managed by the growers and consumers. The growers are employed by the co-operative and consumers share with the growers the seasonal and other risks incurred, as well as the gains.
Credit union: a credit union is a non-profit making financial institution which is owned and run by its members who save regularly into a common fund. This fund offers loans at affordable rates to the members, many of whom would be refused loans by banks because they are on low incomes or because they only want to borrow a very small amount. All credit union members must share a 'common bond' of community (living in the same neighbourhood), of association (belonging to the same organisation, such as a Trade Union) or of employment (employed at the same workplace).
Education Action Zone: these will operate in 25 areas around the country, for between 3 to 5 years in areas of particular underachievement or disadvantage. Government will provide each zone with £750,000 and require that a further £250,000 is found from business. Zones typically cover two or three secondary schools and up to 20 feeder primary schools and will be run by an Action Forum comprising local Education Authorities, business, parents, schools and in some cases, the voluntary sector. Schools within an EAZ will explore innovative forms of learning such as homework

and holiday clubs, cross generational learning schemes, collaboration with the voluntary sector, family literacy centres, outdoor/residential education, citizenship teaching and arts. In some areas, EAZs will link into health or employment zones and with existing Single Regeneration Budget funded projects. In London, Croydon, Lambeth, Newham, Southwark have been designated as EAZs.

Education Business Partnership (EBP): officially started in 1991-2 by the then Department of Education, EBPs bring together local authorities, business, Training and Enterprise Councils (TECs) and voluntary organisations to develop ways of helping young people for adult and working life. EBPs are funded through a range of sources including the local authority, TECs and local business, but receive no Central Government funds.

Environmental Task Force: forming part of Government's £3.5 billion 'New Deal for Employment' programme, which aims to create work or training opportunities for young people, the ETF offers young people 6 months experience of voluntary work and training on environmental projects. Those on placement continue to receive their regular unemployment benefit and an additional small sum. ETF based work and training ranges from practical conservation activities to more office based activities within an environmental organisation.

Food miles: this term, developed by the SAFE Alliance, denotes the distance food travels before it reaches the consumer. The SAFE Alliance and other organisations have campaigned to raise awareness of the negative environmental and social impact of long distance food transportation

Greenbelt land: protected land encircling London and other metropolitan areas. Such land is barred from housing and other developments, except under exceptional circumstances, the aim being to prevent urban sprawl.

Green chains or corridors: 'a series of elongated undeveloped green spaces linking broader areas of open land' according to Regional Planning Policy Guidance 3: Strategic Guidance for London Planning Authorities, Department of the Environment, May 1996

Green or Consultation Papers: draft Government White Papers. These documents are sent out for comment to a range of relevant organisations, and to any individual who requests a copy

Health Action Zone: these are seven year programmes covering particularly deprived areas, acting as a booster to existing Health Improvement Programmes. There are 26 HAZs and Government has allocated £280 million. HAZs bring together relevant health organisations, the voluntary sector and local business to develop and implement a locally agreed strategy for improving the health of local people. They work over a 5 to 7 year life span and provide opportunities for testing out innovative schemes.

Health Improvement Programme (HImP): every Health Authority must develop a HImP in partnership with the local authority and others. HImPs seek to meet nationally set government health targets as well as defining and addressing specific local health priorities. Although the functions of HImPs and HAZs overlap, HAZs act as area-specific 'boosters'

which meet very particular local needs - which may or may not be identical to the defined national priorities.

Healthy Living Centre: this £300 million Lottery funded initiative aims to benefit around 20% of the population during its lifetime by funding healthy living centres throughout the country. Successful projects will be those which adopt a holistic approach to health, and which engage the local community both as beneficiaries and as project partners. Centres may be 'virtual' or physical and will focus on health in its broadest sense, tackling inequality and deprivation.

Horticulture: the production of fruit and vegetables

Hydroponic cultivation: the cultivation of plants in a medium other than soil. Plant roots are supported by an inert medium such as rock wool, sand or vermiculite and fed with a liquid nutrient solution. In the UK this tends to be an artificial NPK (nitrogen, phosphorous and potassium) solution. In addition, hydroponic systems often make intensive use of other fossil fuel based inputs such as heating and lighting. However, more sustainable solutions are possible. Liquid compost or manure can make a suitable nutrient solution while recycled materials or industrial byproducts can also provide support for plant roots - in Southern countries, substances such as coir are often used.

Integrated Pest Management: a means of pest control which combines genetic control (the production of plant varieties with pest and disease resistance) with biological control (using a pest's natural enemy against it), chemical control (used when the first two don't work)and technological control (the use of techniques that inhibit the invasion of pests or the establishment of disease).

Intermediate Labour Market: these are subsidised training placements. Participants receive wages while they undergo training in environmentally beneficial activities, such as retrofitting housing to improve their energy efficiency.

Local Agenda 21: Agenda 21 is the framework for sustainable development which emerged from the 1992 United Nations Conference on Environment and Development in Rio de Janeiro. At its heart lies the belief that economic, social and environmental problems are inextricably linked and that lasting, or 'sustainable' development is only achievable by addressing all three together. Local Agenda 21 is about devolving the process of achieving sustainable change. In this way, local people themselves define what needs to change, decide how to do it and act to achieve it.

Local Exchange Trading Scheme: Local Exchange Trading Schemes are about generating, circulating and enjoying wealth locally. LETS combine aspects of a bank credit card and a barter system. LETS members simply create a unit of exchange and then proceed to offer and receive goods and services from one another priced in terms of this unit. Some are linked to the UK Sterling currency, although about 80% of schemes are not. Each time members 'buy' a good or service, the cost is debited from their account. To gain credits, they must provide a good or service; but not necessarily to the person from which they have obtained a good or service.

Each person trades with the whole system and is in credit or debit to the whole system. What is exchanged varies - from plumbing services to prams, from organic vegetables to legal advice. However, LETS schemes are about more than commodity exchange. They can help generate a sense of local community and for some, the friendships formed through LETS schemes are as important as the services exchanged.

Local Food Links: schemes which aim to bring producers and consumers closer together in local agricultural systems. Examples of local food links are farm shops, local markets, farmers' markets, box schemes and community supported agriculture

Metropolitan Open Land: 'land of predominantly open character which has more than a borough significance, generally because of its size and catchment area' according to Regional Planning Policy Guidance 3: Strategic Guidance for London Planning Authorities, Department of the Environment, May 1996

National Healthy Schools Scheme (NHSS): this is one element of the National Healthy Schools Initiative, a £2 million DfEE and DH Initiative which includes other schemes such as the Wired for Health website, a Strategies for Safer Routes to schools and a series of cooking events in schools. The NHSS is piloting health promotion programmes in eight local authority areas, each of which receive £150,000 to address a range of health issues in schools, including healthy eating and physical activity. In addition, it is evaluating existing health promotion initiatives in schools developed by local authorities and health authorities, consulting nationally and gathering local information on ways of promoting health further in schools. The NHSS will be using the lessons learned from the experiences of the eight pilot schools to Healthy Schools Initiative: The Healthy Schools scheme is key to government's emphasis on 'Healthy Schools' as part of its 'Healthy Settings' scheme outlined in the Department of Health's Our Healthier Nation consultation paper

New Deal for Communities: New Deal for Communities (NDC) is a new £800 million area based regeneration scheme targeted at neighbourhoods of 1-4,000 households in areas of need. Seventeen 'Pathfinder' areas have been selected as eligible and schemes are expected to run for up to 10 years. Local communities are to play a central role both in defining and in tackling the problems of their area. Government is not prescriptive, stressing that each area will have its own, unique priorities. However it suggests that some of the likely issues include jobs, housing, neighbourhood management, encouraging business enterprise, crime and drug action, education, health, community development and so forth.

NVQ: national vocational qualifications still to do

OFSTED: stands for Office for Standards in Education

Permaculture: the word combines 'permanent' with 'agriculture' and 'culture' and it is the conscious design and maintenance of agriculturally productive ecosystems which have the diversity, stability and resilience of natural ecosystems. The overriding principle is that we should work with, rather than against nature.

Recycling credits: a scheme, adopted by many local authorities, which

pays recycling organisations for diverting waste that would otherwise be landfilled. The credit reflects the money saved by the local authority which it would otherwise have incurred in disposal costs.

Single Regeneration Budget: this major pot of regeneration funding has operated since 1995 and is now in its fifth bidding round. In addition to the schemes already running, Government aims to fund around 50 new large or 'comprehensive' SRB schemes within the lifetime of this Parliament, each worth £20 to 25 million and lasting up to seven years. It also plans to fund an unquantified number of smaller schemes located in specific areas of need or addressing a particular issue. The SRB, once very much geared towards 'hard' infrastructural improvements, now allows for a 'softer' approach to regeneration, which addresses issues such as drug dependency, crime, health needs and so on. The latest round also places a stronger emphasis than before on community involvement.

Social Exclusion: this is when people are 'excluded' from participating in a way of life which most of the population enjoys. People can be excluded because of their race or age, because they are disabled, or poor, or because they suffer from a particular problem, such as alcoholism. People can be excluded in some ways, but not in others for instance, by being wealthy yet disabled.

White Paper: official Government policy document, outlining its position and measures it proposes to implement. White papers are preceded by draft documents - Green Papers - or by Consultation documents (see above) which are open to all for comment and suggestion.

Appendix III - Contacts in five London Boroughs

London Borough of Tower Hamlets

Enquiries, Web Address	0171 364 5000, www.towerhamlets.gov.uk/
Agenda 21	Environmental Co-ordinator, Sarah Collins, 0171 364 5317
Councillors	John Briggs
Environment	Parks Recreation & Horticulture, 0171 364 5001
Recycling	Recycling Services, 0171 364 6699
Pollution	Air Quality Hot Line , 0171 364 4952, Environmental Health Promotion Team, 0171 364 6831
Environmental health	Environmental Health Promotion Team, 0171 364 6831
Health	Environment and Health, Alan Hawes, 0171 364 6776, Food Safety, 0171 364 6714
Health and Safety	Department Of Health & Safety, 0171 364 4349
Education	Educational Information, 0171 3644954
Garden Sites	Parks & Recreation, 0171 364 5001
Strategic Policy Unit	Shahidul Miah, 0171 364 4676
Anti-poverty	Shahidul Miah, 0171 364 4676
Youth	Youth Services, 0171 364 6364
Equalities	Lutfar Ali, 0171 364 4723
Regeneration	Kevin Whittle, 0171 364 4247, Regeneration & Tourism, 0171 364 4511
Commercial standards	Colin Perrins , 0171 364 6872
Planning	Gorden Glenday, 0171 364 5337, Bethnal Green, 0171 364 5355 Bow & Poplar, 0171 364 5349 Isle of Dogs, 0171 364 5367 Stepney & Wapping, 0171 364 5362
Employment	Skills Match, 0171 308 0828, Employment Advice, 0171 702 8473
Housing	Stepney Housing Development Agency, Debbie Bednarek 0956 320 947, Housing Directorate, 0171 3647027
Probation Services	Islington Community Services, Peter Mavuanga, 0171 272 5727

Voluntary Sector	Lower Lee Project, Richard Butcher, 0181 983 1121
Groundwork	Camden, 0171 388 1500 or Hackney 0181 985 1755
BTCV	Urban field officer 0171 278 4294, And Emma Harrington
CVS	Community Organisation Forum, Jim Walsh, 0171 377 0955 The Architecture Foundation, Paul Grover, 0171 250 1555
MIND or mental Health groups	0181 319 2122
Age Concern	0181 981 7124
Volunteer Bureaux	Jo Richmond, 0171 377 0956
Health Authority	East London and the City Health Authority, 0171 655 6600
Hospitals	Stepney Day Hospital, 0171 702 8199 The Royal London Hospital, 0171 377 7000 Mildmay Mission Hospital, 0171 739 2331
Health promotion	Arit Ana, Health promotion Unit, East London Health Authority, Claire D'Cruz, East London Community Relations and Health Promotions, 0171 655 6679
Healthy living centres	Bromley By Bow, 0181 980 4618
Community Groups	Environment Trust, Lorraine Hart, 0171 377 0481
Parks	Mile End park, Victoria Park, Meath Gardens, Haggerston Park, Millwall Park
Allotments	Environment Trust, Lorraine Hart, 0171 377 0481
Community Gardens	Jane Sill , 0171 480 5456
Growing Projects	Mudchute, Cable street
City Farms	Mudchute Park Farm, 0171 515 5901, Stepping Stones Farm, 0171 790 8204, Spitalfields Farm, 0171 247 8762,

London Borough of Hackney

Enquiries, Web Address	0181 356 5000, www.hackney.gov.uk/
Agenda 21	Kathryn Johnson, Strategic Policy Unit , 0181 3563390
Environment	Hackney Parks and Nature conservation, Caroline Richards, 0181 806 1826 Lea Valley Regional Park Authority, 01992 717711 Parks & Open Spaces, 0181 806 1826
Recycling	Christine Chaffin, 0181 356 3508
Pollution	Pollution team, Ian Maconnell, 0181 356 2300, Air Quality, 0181 356 4787
Environmental health	Environmental Health Services, 0181 356 4771
Health	Jenny Douse, Regulatory Services, 0181 356 4961
Health and Safety	General Enquiries 0181 356 4920
Education	Nicola Baboneau, 0181 356 4596
Garden Sites	Hackney Allotment Society, Sue Carling, 0171 254 8351
Strategic Policy Unit	Kathryn Johnson, 0181 356 3390
Anti-poverty	Jane Connor, 0181 356 3596
Youth	Youth Services, Pat White, 0181 356 5000, 0181 356 7403
Equalities	Emua Ali, Equalities Manager, 0171 214 8493
Regeneration	Regeneration and Partnership, Chris Hadley, 0181 356 3252 Renaisi (Hackney Regeneration Agency), 0181 356 6666
Web Sites	www.renaisi.co.uk www.members.xoom.com/hackneyfarm www.members.aol.com/hackneyvb
Commercial standards	Ian Gray Commercial Standards Service Unit, 0181 356 4911
Planning	Regulatory Services, 0181 356 4943, Laurence Knott, 0171 418 8033, Building & Development Control Services Unit, 0181 356 8062
Employment	Employment Liaison Projects, 0181 985 2644 Enterprise Careers Service, 0171 275 0346
Housing	Sustainable Development Officer, Paul Lee, 0181 356 2091

	Housing Advice Centre, 0181 356 4434
Primary	Grazebrook Primary School
Nursery	Wentworth Nursery School, Carolyn Maples, 0181 985 3491
Probation Services	Community Sentences Team, Steve Richards, 0181 533 7070
Voluntary Sector	Lower Lee Project, Richard Butcher, 0181 9831121
Groundwork	Hackney, Tim Chapple, 0181 985 1755
BTCV	Urban field officer, 0171 278 4294.
	Learning Through Landscapes, Jez Elkin, 0181 356 7428, Thrive Horticultural Therapy Hackney
CVS	Hackney CVS, Adidha Anjigha, 0171 923 1962.
	The Round Chapple, Chris Lawrence, 0181 533 9676
	Hackney CUDA, Bernadette Murren, 0171 254 6015
	Hackney Community College, Mary Connolly, 0181 985 8484 ex. 502
	The Architecture Foundation, Paul Grover, 0171 250 1555
	Waste minimisation and Recycling, Christine Chaffin, 0181 356 3508
	Hoxton Trust, Jacqueline Kerrigan, 0171 729 1480
Disability	Special Needs Service, 0181 3564200
Volunteer Bureaux	Janice Rafael, 0171 241 4443
Friends of the Earth group	Claire Wilton, 0171 241 2480
Wildlife trust, Contacts	Val Gorbauld, 0181 986 0081
Health Authority	Hackney Health Authority, 0171 655 6600
Hospitals	Homerton, 0181 510 5555
	St Bartholomew's, 0171 601 8888
	City & Hackney NHS Community Trust, 0171 301 3000
	Queen Elizabeth Hospital For Children, 0171 739 8422
Health promotions	Health promotion Unit , Hackney Health Authority, 0171 655 6675
Credit Unions	Bernadette Murren, Hackney Credit Union, 0171 254 6015
	Bootstrap Enterprises, Bakhtiar Hormuz, 0171 254 0775
	Hackney Wholefoods, Les Moore, 0171 354 4923

Community Groups	Greenford Local Agenda 21 Project Group, 0181 758 5659 Hackney Enviromental Forum, 0171 241 3692
Agenda 21 community members	Community Development Local Agenda 21 Development Group, 0181 758 5659
LETS	Simon , 0181 985 30 48
Parks	London Fields, Well Street Common, Hackney Downs, Springfield Park
Allotments	Hackney Allotment Society, Val Shepherd, 0181 806 7177, Sue Carling, 0171 2548351
Growing Projects	Growing Communities, Julie Brown, 0171 923 0412 Gardening for Growth, Rozz Cutler, 0171 275 9100
City Farms	Hackney City Farm, Jonathan Edwards, 0171 729 6381
Interested individuals	Ms Zagorska 21 Kent Court Kent Street Hackney E2 8NU

London Borough of Ealing

Enquiries, Web Address	0181 579 2424, www.ealing.gov.uk/
Agenda 21	Environmental Co-ordinator, Michael Calderbank, 0181 758 5269
Environment	Environmental & Parks Improvement, 0181 758 5907 Environmental Centre - Brent River Park, 0181 758 5916 Countryside & Parks Service, 0181 758 5916 Environment and Contract services (The countryside weekend organisers), 0181 758 5631
Recycling	Ealing Community Transport (ECT): 0181 578 3182,
Pollution	Pollution Control, 0181 758 5738
Environmental health	Dept of Environmental Health, 0181 758 5738
Health	Tony Wheale, Food Hygiene, 0181 758 5044
Health and Safety	Health & Safety at Work, 0181 758 5940
Education	Ealing Education Centre, 0181 876 6154
Garden Sites	Allotments, 0181 578 5744
Youth	Youth Services, 0181 758 8735
Regeneration	Community Regeneration Unit, 0181 758 5866
Planning	Planning Policy Section, 0181 758 5658 Building Alterations, 0181 758 5617 Built Environment & Land Use, 0181 280 1108 Planning Applications, 0181 758 8039 Planning Enforcement, 0181 280 1193 Planning Objections, 0181 758 5028 Planning Register, 0181 758 8039 Dick Johns, 0181 758 5659
Employment	Recruitment Link , 0181 758 5612, ,
Housing	Housing Advisory Services, 0181 758 8002
Shows	David Neal Countryside ranger 0181 903 3945 Ealing countryside show 1st weekend in July

Probation Services	Ealing Community Services Manager Southall 0181 574 1071
Groundwork	West London , Laurence Pinturault 0181 743 3040
BTCV	Urban field officer, 0171 278 4294
CVS	General Secretary , Cillia Phillips, 0181 579 6273 Greenford Local Agenda 21 Project Group, 0181 758 5659
Disability	Dissability Services, 0181 579 2424.
Volunteer Bureaux	The Manager, 0181 579 6273
Friends of the Earth group	Rose McMAnus, 118 the Drive, Hounslow, Middlesex, TW3 1PW, (Hounslow FoE)
Wildlife trust, Contacts	John Ereorall, 1 Brition Way, W13 OBY
Health Authority	Ealing Hamersmith & Hounslow Health Authority, 0181 893 0303
Hospitals	Clayponds Hospital, 0181 560 4011 Ealing Hospital, 0181 574 2444 The Montpellier Hospital, 0181 998 2848 Penny Sagam Day Hospital, Southall-Norwood Hospital, 0181 571 6110
Health promotions	Health Promotions, Ealing Hamersmith & Hounslow Health Authority, 0181 893 0100
Credit Unions	Caribean Pearants
Agenda 21 community members	The Ealing Local Agenda 21 Community Development Group, 0181 758 5659, Bernadette Carlton
Parks	Perivale Park, Ravenor Park, Brent Valley Bird Sanctuary, King George's Field, Pitshanger Park, Cleveland Park
Allotments	Ealing and Hanwell Allotment association, Nigel Summer, 0181 992 9648 Organic Allotments Group, 63 Loveday Road Ealing London W13 9JT

Royal London Borough of Kensington and Chelsea

Enquiries, Web Address	0171 937 5464, www.rbkc.gov.uk/
Agenda 21	Joan McGarey, 0171 341 5173
Environment	North Kensington Environmental Forum Pat Mason, Natasha Nicholson or Pamela Charlick
Recycling	Recycling Services, 0171 341 5148
Pollution	Pollution, 0171 361 3484 Commercial Waste, 0171 341 5284, Hugh Donohoe
Environmental health	Dept of Environmental Health, 0171 361 3484, Teresa Fung 0171 341 5166
Health	Food (Hygiene/Training), 0171 341 5282 Education Welfare Services, 0171 221 4002
Health and Safety	Dept of Health & Safety, 0171 361 3484
Education	Community Education Services, 0171 598 4901 Education Department, Collette Levan, 0171 937 5464 Careers Service, 0171 603 0686
Garden Sites	No Actual Allotment Sites, Garden Waste Collection, 0171 341 5284
Youth	Youth Services, 0171 598 4901, Adventure Playground, Alice Mc Coll, 0171 730 4093, Chelsea Estates Youth Group, Kenneth Hammond
Equalities	Community Relations Department, 0171 598 4630
Regeneration	Listed buildings, conservation areas, design advice , 0171 361 2341
Planning	General enquiries 0171 361 2079, Applications and enforcement: North - W2, W10, W11(part), 0171 361 3266. Central - W8, W14, W11(part), SW5(part), 0171 361 3264. South West - SW3(part), SW5(part), SW7(part), SW10 , 0171 361 2086. South East - SW1, SW3(part), SW7(part) 0171 361 2702.
Employment	Employment Initiatives Officer, Vera Gajic, 0171 361 3735

Housing	Housing Advice, 0171 361 2231, Tenant Management representatives, Alma Haq Simon Martin, 0171 361 3735
Brighter Borough Projects	Ursula Price, 0171 584 1234
Probation Services	Chiswick Community Services Manager, Liz Hales 0181 994 9393
Groundwork	West London , Laurence Pinturault 0181 743 3040
BTCV	Urban field officer, 0171 278 4294
CVS	Chelsea Social Council Sara Copland, 0171 351 3210 Voluntary Action Westminster, Neil Orr, 0171 723 1216
Ethnic Groups	African Family Trust, Elizabeth Marilyn, 0171 792 8695
MIND or mental Health groups	MIND 0171 727 8975 SMART, 0171 376 4668
Disability	Action disability, Peri Stanley, 0171 937 7073
Age Concern	Desmond McGinley, 0171 937 3944
Volunteer Bureaux	Janie Thomas, 0181 960 3722
Friends of the Earth group	Kensington, Chelsea and Westminster, Irene Brown-Lana, 0171 580 1888
Wildlife trust, Contacts	Peter Allam , 0171 373 7387
Food distribution projects	AC Kensington and Chelsea lunch Club, Betty Cuthburt, 0171 584 1791
Health Authority	Kensington , Chelsea and Westminster Health Authority, Susan Otiti/ David Black, 0171 725 3333
Hospitals	Charing Cross Hospital, 0181 846 1234 Chelsea and Westminster, 0181 746 8000 Cheyne Child Development Service, 0181 846 6488 Princess Louise Hospital, 0181 969 2488 Royal Brompton and Harefield NHS Trust, 0171 352 8121 Royal Marsden Hospital, 0171 352 8171 St Charles Hospital (minor injury unit), 0181 969 2488 St Mary's Hospital, 0181 886 6666 ,
Health promotions	RBKC Environmental Health Promotion, 0171 341 5683

	Hospital Social Work Teams, Royal Brompton, 0171 352 8121 Chelsea & Westminster , 0181 746 8788 Royal Marsden, 0181 642 6011 St Charles, 0181 962 4174 St Marys, 0171 752 6533
Credit Unions	North Paddington Credit Union Business links, Helen Kay, 0171 341 5684
Community Groups	Community History Group, Liz Bartlett, 0181 968 0921 Mangrove Trust, Jebb Johnson, Venture Community Association, Fay Williams, 0181 960 3234, Riverside
Parks	Athlone Gardens, Avondale Park, Cremorne Gardens , Holland Park, Kensington Memorial Park
Centres	Ecology Centre, Erica Constantine Thomas Peel Yates, 0171 471 9802
Allotments	No Actual Allotment Sites
Community Gardens	Meanwhile wildlife gardens, Kensington and Chelsea MIND, 0181 960 6336, Jackie Rosenburg
Interested individuals	Esjae Williams

London Borough of Hillingdon

Enquiries, Web Address	01895 250 111, www.hillingdon.gov.uk/
Agenda 21	Dennis Judge, 01895 277658
Environment	Head of Environmental and Technical Services , Richard Farrant, 01895 250158 Ecology Forum 01895 250620
Recycling	Recycling Manager, Duncan Jones, 01895 277507
Pollution	Air Noise and Land Contamination, 01895 250155 River Polution, 0800 807060
Environmental health	Environmental Health Services, 01895 250 190,
Health	Hillingdon Community Health Council, Mr C Roe, 01895 257858
Health and Safety	Health & Safety Advisor, Mike Farrell, 01895 250597
Education	General Enquiries, 01895 250494
Garden Sites	Dawn Comyns, Property Services, 01895 250929
Anti-poverty	Policies Department, 01895 250612
Youth	Youth & Community Officer, Brian Cluer, 01895250644
Equalities	Equal Opportunities Officer, 01895 250901 Hillingdon Racial Equality Council, 0181 848 1380
Regeneration	Conservation & Development Officer, Colin Roome, 01895 250456
Planning	Manager of Planning Implementation, Janet Duncan , 01895 250727 Manager of Planning Policy, Dave Roy, 01895 250480 Head of Planning Services, David Chivers, 01895 250627 Hayes and Harlingdon Environmental Planning Sub-Committee, Sue Came, 01895 239830 Estates Manager, Pat Holmes, 01895 250933
Employment	Careers Service, 01895 257855
Housing	Client Services Manager, Wendy Erlick, 01895 250147

Probation Services	Harrow and Hillingdon Community Services Manager , 01895 231 972
Groundwork	Thames Valley, Sarah Burns, 01895 832662,
BTCV	Urban fringe field officer 0171 278 4294
CVS	Hillingdon Association of Voluntary Services, Carol Coventry, 01895 239830 North West London Group of the Council for the Protection of Rural England - 0171 256 6116 , Bourne Farm Allotment & Garden Society, 0181 573 7268 Eastcote Horticulture Society, 018 866 5628 Fairway Allotment Society (Ruislip), 0181 845 2833 Harefield Horticulture Society, 01895 822 680
Age Concern	Hamish Bigger, Gardening and DIY Co-ordinator
Volunteer Bureaux	Carol Pearson /Jenny Price, 01895 44 27 30
Friends of the Earth group	Tom Lindley 01923 820890, Sweeting, Susan, 01895 639251,
Wildlife trust, Contacts	Roger Taylor, 0181 868 0207
Health Authority	Hillingdon Health Authority, 01895 452000, Chief Dietician, Susan Okafor
Hospitals	Bishops Wood Hospital, 01923 835 814 Harefield Hospital, 0181 823 737 Cherry Mckie, Linda Mcartney Centre, Mount Vernon & Watford Hospital, General Manager, 01923 844 250 St Marks Hospital, 0181 235 4000 Hillingdon Hospital, 01895 238 282 Northwick Park Hospital, 0181 864 3232 Northwood and Pinner Community Hospital, 01923 824182 St Vincents Hospital, 0181 429 6200
Health promotions	Val Aston, Health Promotions, Hillingdon Health Authority, 01895 452 000
Credit Unions	Hillingdon Council Credit Union

LETS	Hillingdon Local Exchange Trading Scheme, Dave Williams, 01895 846 733
Parks	Denham Country Park, Swakeleys Park, Pinner Park, Warrender Park, Uxbridge Common, Bayhurst Wood Country Park, Pole Hill Park
Centres	Rural Activities Centre, Merrillians Corner, West Drayton Road
City Farms	Andrew Milich Park Lodge Farm 01895 824425 John Penrose Farm & Horticulture Centre, John Penrose School, Hounslow Urban Farm, 0181 751 0850

Appendix IV - Contacts

Agency for Technical Co-operation (GTZ) (German)
c/o ETC Foundation
PO Box 64, 3830 AB Leusden, The Netherlands
Tel: +31 33 494 3086
Fax: +31 33 495 1779

Apple Tree Court TMC Ltd
G4 Apple Tree court
Salford M5 4AY
0161 743 9233

ASDA
Southbank, Great Wilson Street,
Leeds, SL11 5AD
Tel: 0113 241 8042
Fax: 0113 241 8015

The Allotments Coalition Trust
c/o The Land is Ours
Box E, 111 Magdlen Road, Oxford,
OX4 1RQ
Tel: 01865 722 016

Anglia Water Services
PO Box 46, Spalding, Lincs.,
PE11 1DB
Tel: 0345 145 145

Beanstalk Project
The Old School House, Mill Lane,
Carshalton, Surrey, SM5 2JY
Tel: 0181 770 6611

The Becontree Organic Growers Project (BOG)
44 Gale Street, Dagenham, Essex,
RM9 4NH
Tel: 0181 592 8941

The British Bee-keeping Association (BBKA)
The National Agriculture Centre,
Stoneleigh, Kenilworth,
Warwickshire, CV8 2LX
Tel: 01203 696 679

British Retail Consortium
Stamford House, Stamford Street,
London, SE1 6LL
Tel: 0171 921 6918

British Trust for Conservation Volunteers (BTCV) London
80 York Way London N1
0171 278 4295

British Trust for Conservation Volunteers (BTCV) National
36 St. Mary's Street Wallingford
Oxon CX10 0EU
01491 839 766

Bromley by Bow Centre
1 Bruce Road, London E3
Tel: 0181 983 1025

Cable Street Community Gardens
101 Matilda House St. Katherine's Way London E1 9LF
0171 480 5456

Calthorpe Community Gardens
258-274 Gray's Inn Road, London,
WC1X 8LH
Tel: 0171 837 8019

Capel Manor College
Bullsmoor Lane, Enfield,
Middlesex, EN1 4RQ
Tel: 0181 366 4442

Centre for food policy
Thames Valley University
Wolfson Institute of Health Science
32 – 38 Uxbridge Road Ealing
London W5 2BS
0171 280 5123

Chartered Institute of
Environmental Health
Chadwick Court, 15 Hatfields,
London, SE1 8DJ
Tel: 0171 928 6006

The Chase Neighbourhood Centre
(Nottingham)
Robin Hood Chase, St Anns,
Nottingham NG3 4EZ
Tel: 0115 947 2705

Common Ground
PO Box 25309, London, NW5 1ZA
Tel: 0171 267 2144

Community Composting Network
67 Alexander Road, Sheffield, S2
3EE
Tel: 0114 258 0483

Composting Association
Ryton on Dunsmore, Coventry, CV8
3LG
Tel: 01203 308 222

Confederation of Indian
Organisations
5 Westminster Bridge Road London
SE1 7XW
0171 928 9889

Corporation of London
Tony Halmos
PO Box 270, The Guildhall,
London, EC2P 2EJ
Tel: 0171 332 1450

Countryside Agency
4th Floor, 71 Kings Way, London,
WC2B 6ST
Tel: 0171 831 1439

DANIDA
Asialisk Plads 2, 1448,
Copenhagen K, Denmark
Tel: +45 33 92 00 00

Dartford Road Allotments
Robert Johnson
Quality Environment for Dartford
(QED) Allotments Group
85 Denver Road, Dartford DA1 3JU
Tel: 01322 229 298

Department of Culture Media and
Sports
2-4 Cockspur Street, London SW1Y
5DH
Tel: 0171 211 6200

Department of Education and
Employment
Room 432 Sanctuary Building,
Great Smith Street, Westminster
London, SW1P 3BT
Tel: 0171 925 5736

Department of Environment
Transport and the Regions (DETR)
Eland House, Bressenden Place,
London, SW1E 5DU
Tel: 0171 890 3000

Department of Health
Richmond House, 79 Whitehall,
London, SW1A 2NS
Tel: 0171 210 3000

Department of Trade and Industry
(DTI)
1 Victoria Street, London, SW1H
0ET
Tel: 0171 215 5000

East Anglia Food Link
49a High Street, Watton, Thetford, IP25 6AB
Tel: 01953 889 236
Fax: 01953 889 222

Elm Farm Research Centre
Hampstead Marshall, Nr. Newbury, Berks, RG15 0HR
Tel: 01488 658 298
Fax: 01488 658 503

English Nature
Northminster House Northminster Road Peterborough PE1 1UA
Tel. 01733 455000

English Partnership
58 – 60 Katherine's Way
London E1 9LB
Tel. 0171 680 2000

Environment Agency
20 Albert Embankment, London, SE1 7TJ
Tel: 0171 587 3000

Federation of City Farms and Community Gardens (FCF&CG)
The Greenhouse, Hereford Street, Bedminster, Bristol, BS3 4NA
Tel: 0117 923 1800
Fax: 0117 923 1900

Financial Times Food Business
Prospect House
67 Boston Manor Road Bentford Middlsex TW8 9JQ
tel 0181 758 9414 fax 0181 758 9404

Food Futures
c/o The Soil Association
Bristol House 40-56 Victoria Street
Bristol BS1 6BY
0117 929 0661 fax0117925 2504

Freightliners City Farm (Islington)
Sheringham Road London N7 8PF
Tel 0171 609 0467

Gardening for Growth
Lee House, 6-6a Rectory Road, London N16 7QS
Tel: 0171 275 9100

Gardening Which? Magazine
2 Marylebone Road, London, NW1 4DF
Tel: 0171 830 6000
Fax: 0171 830 7676

Good Gardeners Association
Pinetum Lodge, Churcham, Glos GL2 8AD
Tel. 01452 750402

Grazebrook Primary School's
87 Queen Elizabeth's walk London N16 5UG

Green Adventure
54 Camberwell Business Centre
99 Lomond Grove, London SE5 7HN
Tel: 0171 277 2529

Groundwork Black Country
Westmidland House, Gypse Lane, Willenhall, Birmingham, West Midlands, WV13 2HA
Tel: 0121 609 7217

Groundwork Thames Valley
Coln Valley Park Centre, Denham Court Drive, Denham, Middlesex, UB9 5PG
Tel: 01895 832 662
Fax: 01895 833 552

Growing Communities
Julie Brown
53a Nevill Road, Stoke Newington London, N16 8FW
Tel: 0171 923 0412

Harington Scheme
55a Cholmeley Park, Highgate N6 5EH
tel: 0181 341 3657

Healing Gardens
c/o The Thames Valley Groundwork Trust
Denham Court Drive
Denham Uxbridge Middlesex UB9 5PG
Tel 01895 832 662 fax 01895 833 552

Health Education Authority
Trevelyan House, 30 Great Peter Street, London
Tel: 0171 413 1914
Fax: 0171 413 1834

Henry Doubleday Research Association (HDRA)
Ryton-on-Dunsmore, Coventry, CV8 3LG
Tel: 01203 303 517
Fax: 01203 639 229

Home Office
50 Queen Anne's Gate, London, SW1H 9AT
Tel: 0171 273 4000

Hoxton Trust
156 Hoxton Street
London N1 6SH
Tel: 0171 729 1480

The Improvements and Development Agency
(formerly the Local Government Management Board)
Layden House, 76-86 Turnmill Street, London, EC1M 5LG
Tel: 0171 296 6600
Fax: 0171 296 6635

International Common Ownership Movement (ICOM)
321 Essex Road, London, N1 3PS
Tel: 0171 288 1070
Fax: 0171 288 1086

International Development Research Centre (IDRC) (Canada)
250 Albert Street, Box 8500, Ottawa, Ont., Canada, KIG 3H9
Tel: 613 236 6163
Fax: 613 238 7230

Joseph Rowntree Foundation
The Home Stead, 40 Water End, York, YO30 6WP
Tel: 01904 615 931

Land Use Database
Department of Environment, Transport and the Regions (DETR)
Tel: 0171 890 3000

Lea Valley Growers' Association
37-39 Turners Hill, Cheshunt, Waltham Cross, Herts, EN8 8NP
Tel: 01992 625 076

Learning Through Landscapes
c/o The Environmental Curriculum Centre
77 Bexley Road London SE9 2PE
Tel: 0181 356 7428

LETS-Link UK
Liz Shephard
61 Woodcock Road, Warminster, BA12 9DH
Tel: 01985 217 871

Local Government Association
35 Great Smith Street, London, SW1p 3BJ
Tel: 0171 664 3000

The London Biodiversity Partnership
Peter Massini, The London Ecology Unit, Bedford House, 125 Camden High Street, London, NW1 7JR
Tel: 0171 267 3052

London Borough of Tower Hamlets
Agenda 21 Co-ordinator
41–47 Bow Road London E3 2BS
Tel 0171 364 5317 fax 0171 364 5421

The London Ecology Unit
Bedford House, 125/133 Camden High Street, London, NW1 7 JR
Tel: 0171 267 7944

London Organic Food Forum
17 Veron Road, London, N8 0QD
Tel: 0181 889 4226

London Planning Advisory Committee (LPAC)
Artillery House, Artillery Row, London, SW1P 1RT
Tel: 0171 222 2244
Fax: 0171 222 2656

London Voluntary Service Council (LVSC)
356 Holloway Road, London, N7 6PA
Tel: 0171 700 8107
Fax: 0171 700 8108

London Pride Waste Action
36 Old Queen Street, London, SW1H 9JF
Tel: 0171 732 9602
Fax: 0171 635 7141

Ministry of Agriculture, Fisheries and Food (MAFF)
Noble House, 17 Smith Square, London, SW1P 3JR
Tel: 0645 335 577

Mudchute City Farm
Pier Street, London, E14 9HP
Tel: 0171 515 5901

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Fax: 0171 331 7372

National Healthy Schools Scheme
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National Society of Allotments and Leisure Gardeners
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Fax: 01536 246 509

Natural Growth
Medical Foundation for the care of victims of torture
2 Langland Gardens London NW2 6PY

The North and East London Waste Minimisation and Management Project (NELWMMP)
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87 Worship Street, London, EC2A 2BE
Tel: 0171 247 3327
Fax: 0171 247 4740

North London Lets
Waterlow Road, London, N19 5NJ
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Organic Conversion Information Service (OCIS)
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Oxfam
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Fax: 01865 313 101

Park Lodge Farm
01895 824425

The Permaculture Association of Britain
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Pesticides Trust
Eurolink Business Centre, 49 Effra Road, London, SW2 1BZ
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Philadelphia Urban Gardening Project
College of Health and Human Development
S-263 Henderson Building, Penn State University, University Park, Pa 16802, USA
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Pioneer Health Centre
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Tel: 01248 812 833

Porlock Community Nursery
Groundwork South Tyneside
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tel: 0191 428 1144 fax: 0191 428 1155

Proper Job Co-op
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tel: 01647 432616

Quality Environment for Dartford (QED) Allotments Group
85 Denver Road, Dartford, DA1 3JU
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Restore
Manzil Way, Cowley Road, Oxford, OX4 1YH
Tel: 01865 790 193

Roots & Shoots
The Vauxhall Centre, Walnut Tree Walk, London, SE11 6DN
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SHARE Community
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Tel 0171 924 2949

The Shiitake Mushroom Project
Cuthelton Lilybank and Newbank Neighbourhood Initiative
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Social Enterprise London
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Soil Association
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Spitalfields City Farm
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St Mary's Garden (Horticultural Therapy Hackney)
PO Box 13719, London, E2 8TB
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Sunnyside Community Gardens
c/o Crouch Hall Recreation Centre
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Support Group on Urban Agriculture
c/o The Urban Agriculture Network
Jac Smit
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Surrey Docks City Farm
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Rotherhithe London SE16 1EY
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Taste of the South East
Tel: 01798 874250

Thames Water Utilities
PO Box 295, Swindon, SN38 1TH
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Thrive (formally Horticultural Therapy)
The Geoffrey Udall Centre
Beech Hill Reading RG7 2AT
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Tower Hamlets Allotments and Community Gardens Association
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The Treasury
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The United Nations Food and Agriculture Organisation
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Women's Institute Country Markets
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The World Bank
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World Health Organisation
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Sustain: The alliance for better food and farming

(formerly the National Food Alliance and the Sustainable Food, Agriculture and Environment Alliance)

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Agricultural Christian Fellowship
Association of Public Analysts
Association of School Health Education Co-ordinators
Association of Unpasteurised Milk Producers
Baby Milk Action
Bio-Dynamic Agricultural Association
British Association for the Study of Community Dentistry
British Dental Association
British Diabetic Association
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Campaign for Real Ale
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Genetics Forum
GMB (Britain's General Union)
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Guild of Food Writers
Health Education Trust
Henry Doubleday Research Association
Hyperactive Children's Support Group
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Local Authorities Co-ordinating Body on Food and Trading Standards (LACOTS)
Maternity Alliance
McCarrison Society
National Association of Teachers of Home Economics and Technology
National Confederation of Parent-Teacher Associations
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National Dental Health Education Group
National Farmers' Union
National Federation of Consumer Groups
National Federation of Women's Institutes
Northern Ireland Chest, Heart and Stroke Association
Oral Health Promotion Research Group
Permaculture Association
Pesticides Trust
Plantlife
Rural Agricultural and Allied Workers' Union (TGWU)
Scottish Crofters' Union
Scottish Federation of Community Food Initiatives
Society of Health Education and Health Promotion Specialists
Soil Association
Townswomen's Guild
UK Public Health Association
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Vegetarian Society
West Country Graziers
Wildlife and Countryside Link
Willing Workers on Organic Farms
Women's Environmental Network
Women's Food and Farming Union
World Cancer Research Fund

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Chartered Institute of Environmental Health
Christian Aid
Consumers' Association
Faculty of Public Health Medicine of the Royal College of Physicians
Farmers' World
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Health Education Authority
Intermediate Technology Development Group
Institute of Food Research
Institute of Trading Standards Administration
National Consumer Council
National Heart Forum

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Royal Society of Health
Royal Society for the Protection of Birds
Scottish Consumer Council
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UK Food Group
Vega Research
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Wildlife Trust
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Sustain

The alliance for better food and farming

Our work
To represent around 100 national public interest organisations working at international, national, regional and local level.

Our aim
To advocate food and agriculture policies and practices that enhance the health and welfare of people and animals, improve the working and living environment, promote equity and enrich society and culture.

CityHarvest

The feasibility of growing more food in London

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