Food Growing in Parks

FEED LEEDS

www.feedleeds.org

Tom Bliss

Leeds Beckett University: Landscape Architecture Tutor

University of Leeds: United Bank of Carbon (Trees and Climate)


Potters Field Park, London


Waterhead Park, Oldham

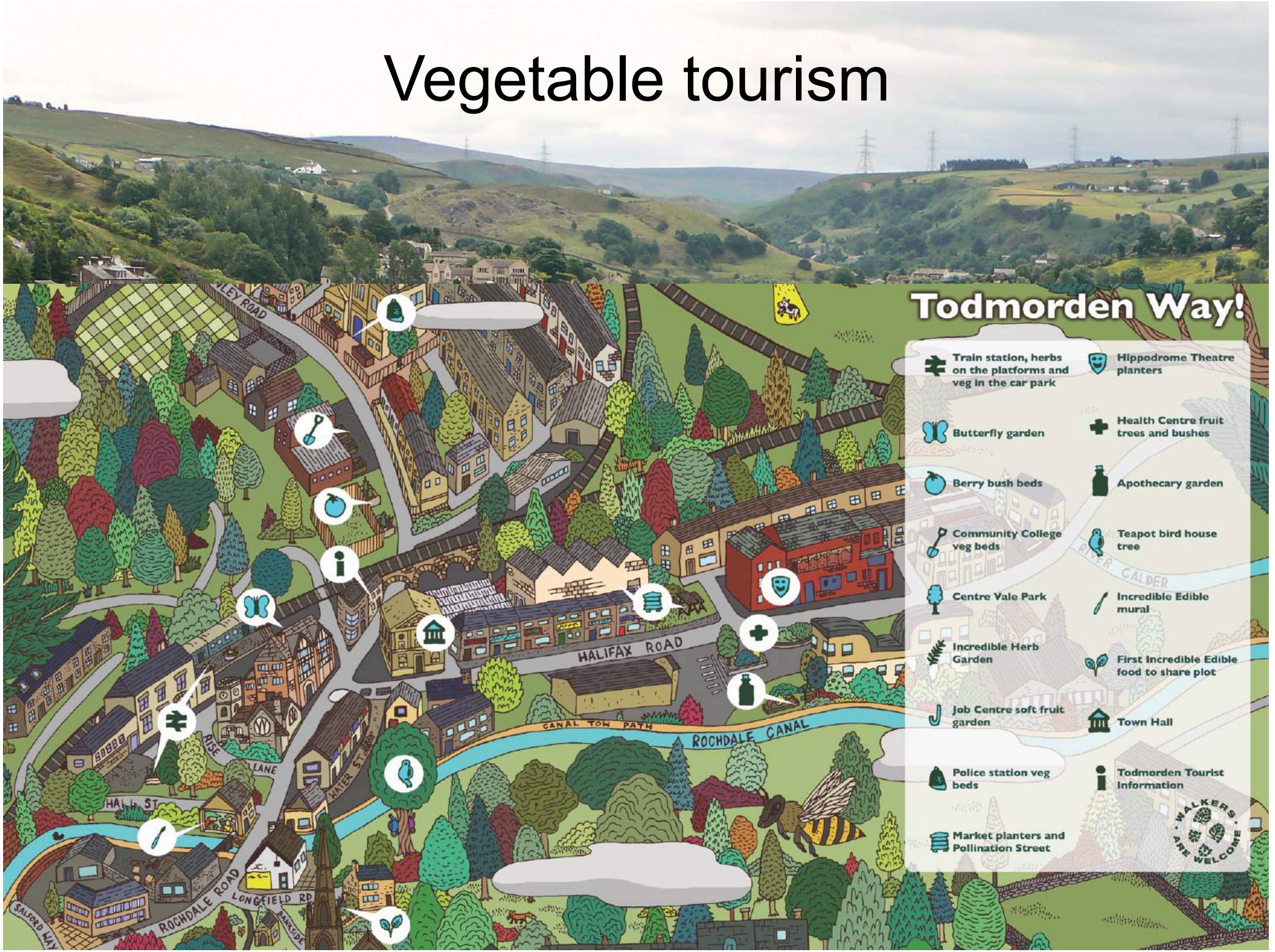

Kensington Gardens, London


Ruskin Park, Lambeth


Muiravonside Park, Falkirk

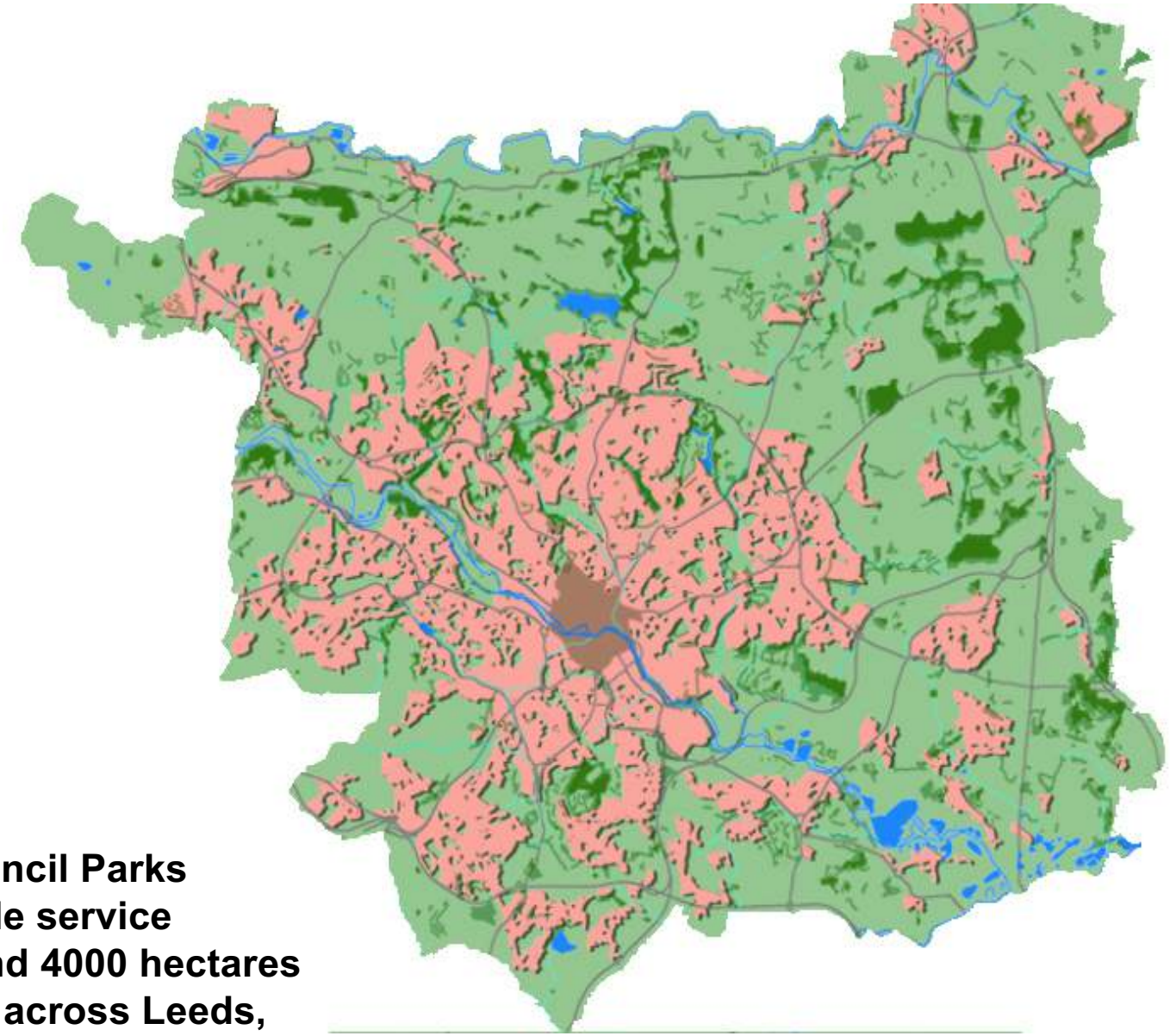
Incredible Edible Todmorden

Vegetable tourism

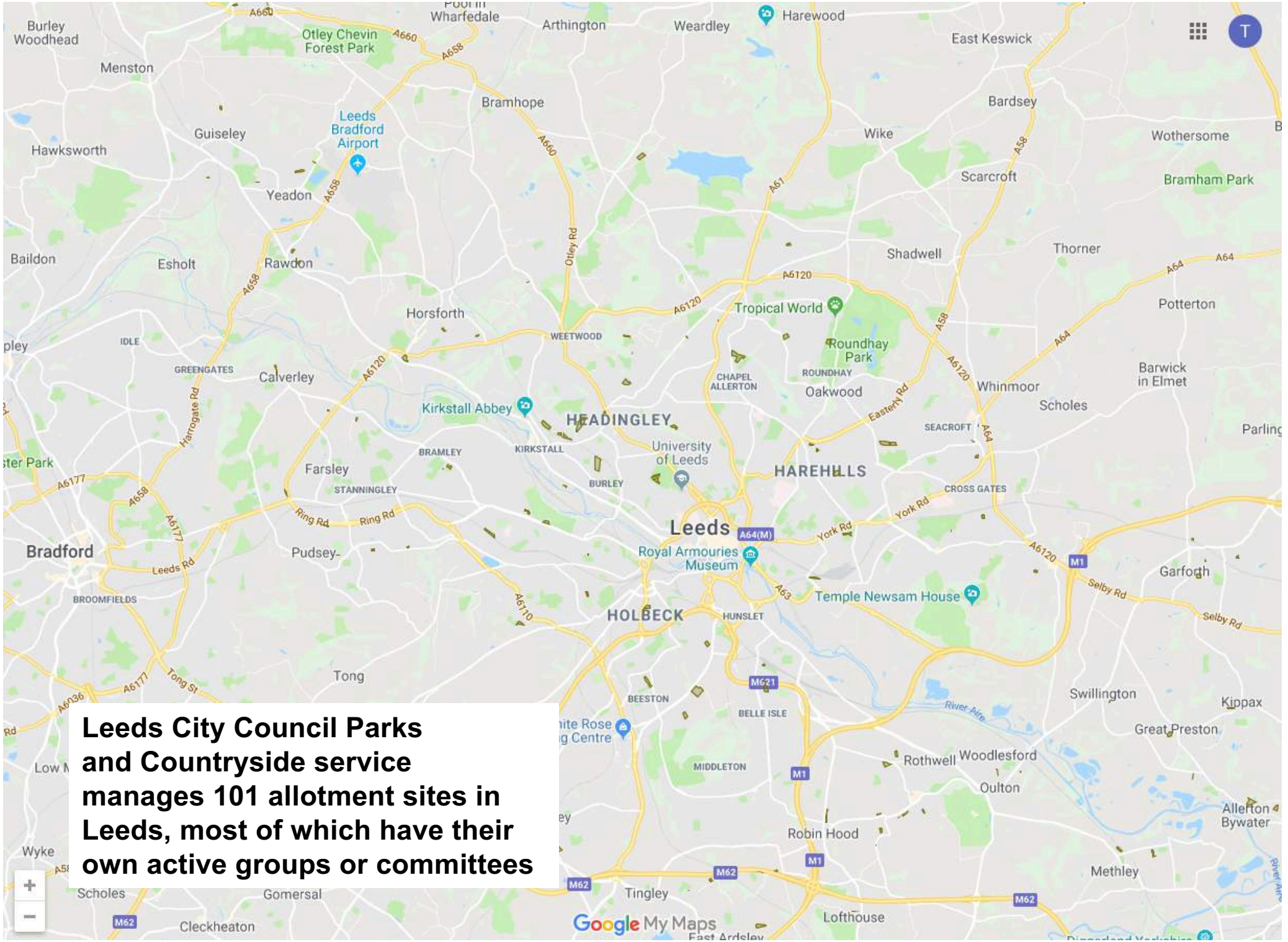



Ashe Park, Hants
© Marianne Majerus

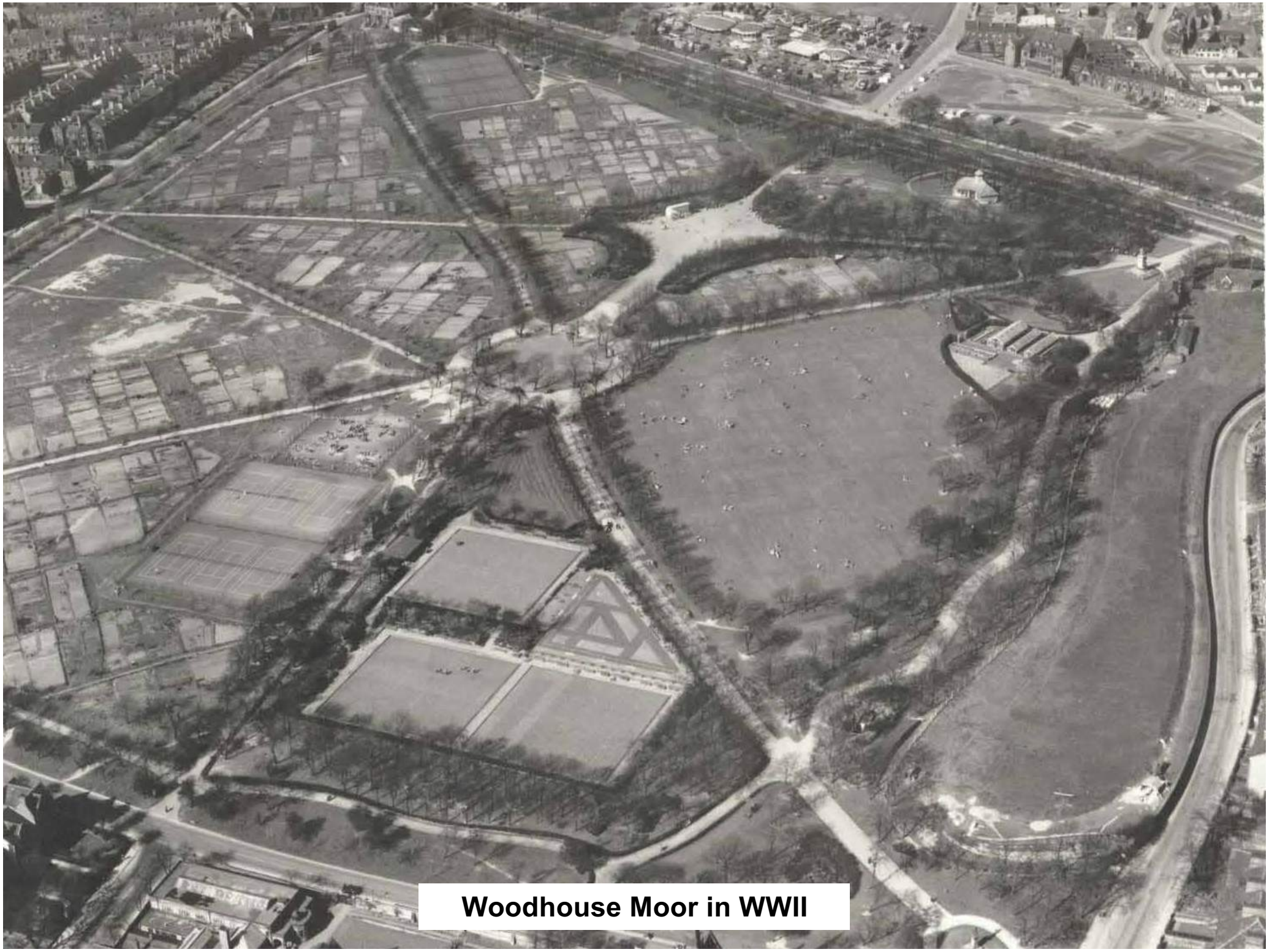
Leeds



Leeds City Council Parks and Countryside service manages around 4000 hectares of green space across Leeds, or 72% of the city


Leeds City Council Parks and Countryside service manages 101 allotment sites in Leeds, most of which have their own active groups or committees
Leeds
Bradford
HEADINGLEY
HAREHILLS
HOLBECK
Kirkstall Abbey
University of Leeds
Royal Armouries Museum
Temple Newsam House
Tropical World
Roundhay Park
Google My Maps


But
700 people
on the LCC waiting list
Hollin Lane Allotments



Woodhouse Moor in WWII

Community Food Growing in Leeds

Meeting, 14th December 2011

9.30am – 11am

Farnley Hall, Farnley Park, Hall Lane, Farnley, LS12 5HA

FEED LEEDS


FEED
LEEDS
Potternewton Park 20 09 2012

Feed Leeds is a network of individuals and organisations working in partnership to support local food growing (at home, in allotments, at schools, in community projects or commercially) for its social, economic, environmental and health benefits, and to promote healthy, sustainable and affordable food in Leeds.

77 member organisations, monthly meetings, lobbying, connecting


Civic Hall


Community Orchard
FEED LEEDS
Allerton Grange Fields


St Johns City Centre


FEED LEEDS
Burley Park Orchard


FEED
LEEDS
Wharfedale Park, Otley

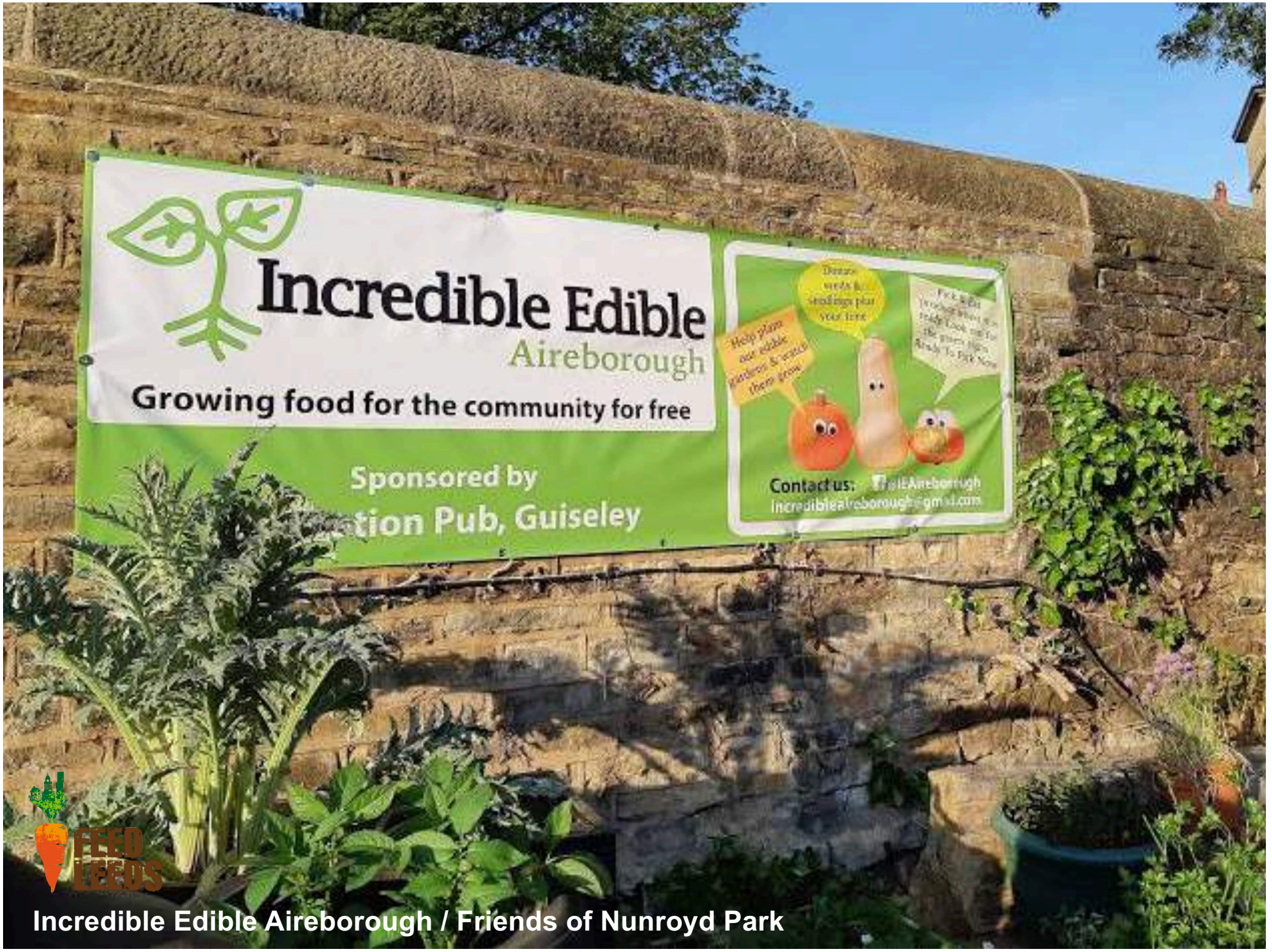

FEED LEEDS
Oakwood Clock (REAP)
www.roundhaypark.org.uk


Future Totem Signage
Proposed Specimen Feature Tree
Feature lighting to clock tower to lighting engineers design and specification. New resin bound flooring to clocktower.
PRINCES AVENUE
Dashed line denotes extent of existing soft landscape bed adjacent to car park.
Existing Planting retained where possible. Subject to condition.
Existing car park
Edible bed: to be used for edible vegetable growing
Uplighters
475mm high retaining wall
Existing cobbles to be removed and re-used on site within art feature / edges to new beds
Engraved brick sponsor feature trim (500No.)
Future mosaic art design with sacrificial paving
Existing car park
475mm high retaining wall
Uplighters
Drainage channel to Engineers / LCC specification
Locations for future cycle stands
Totem signage
Existing paving retained & protected where possible. Subject to condition.
ROUNDHAY ROAD


REAP
Gardening Group
Community Edible Bed
This bed is managed by volunteers from REAP to demonstrate growing vegetables in a small urban space. If you wish to get involved please join us here on the third Saturday of each month during the Farmers' Market.
If the food is ready to eat please take some, it's free. For more information visit www.reap-leeds.org.uk and www.feedleeds.org.uk
FEED LEEDS
Supported by Leeds

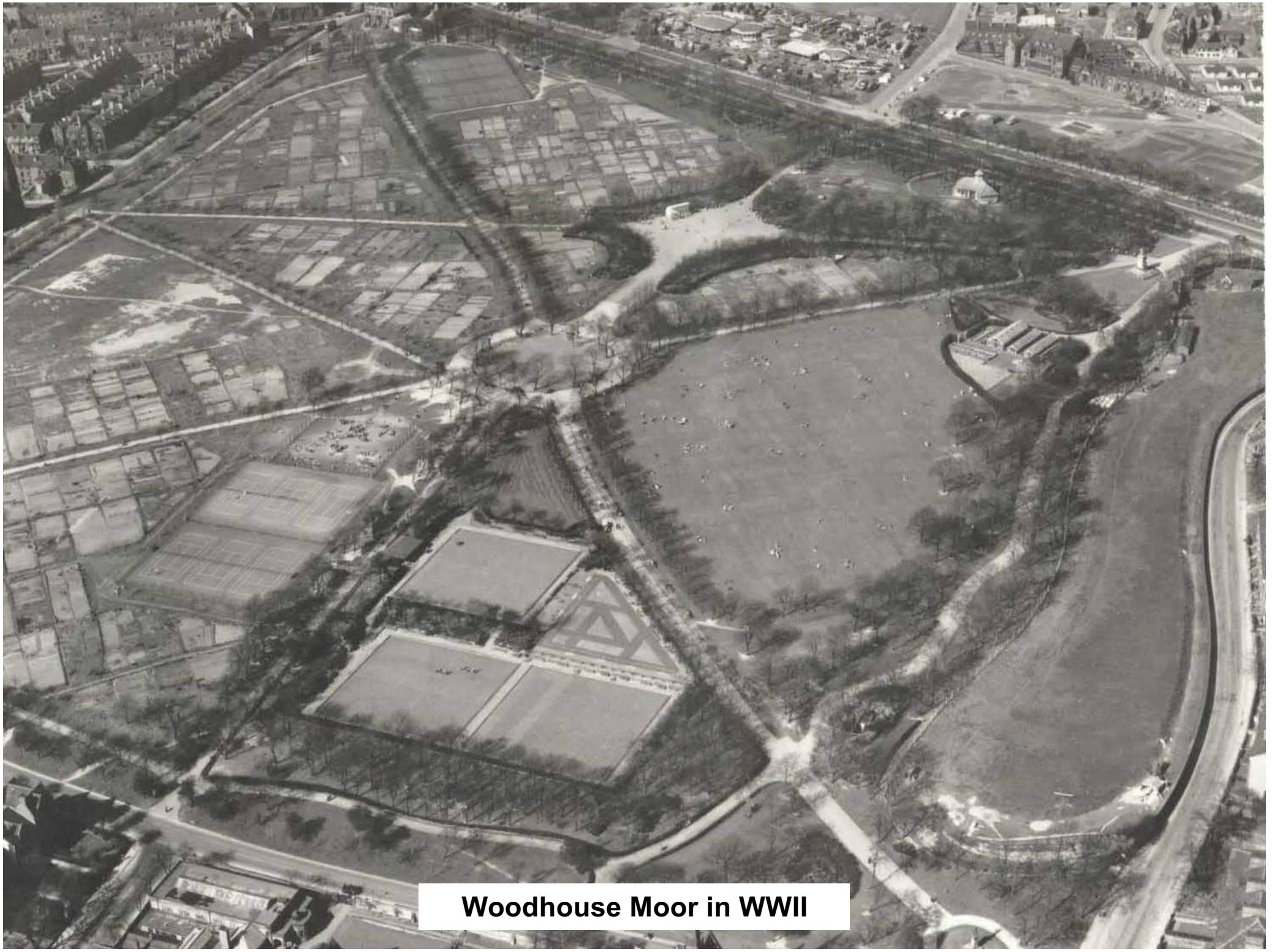
University Sustainable Garden / Rooted


FEED LEEDS
THE ORCHARD PROJECT
The Orchard Project + Leeds Urban Harvest



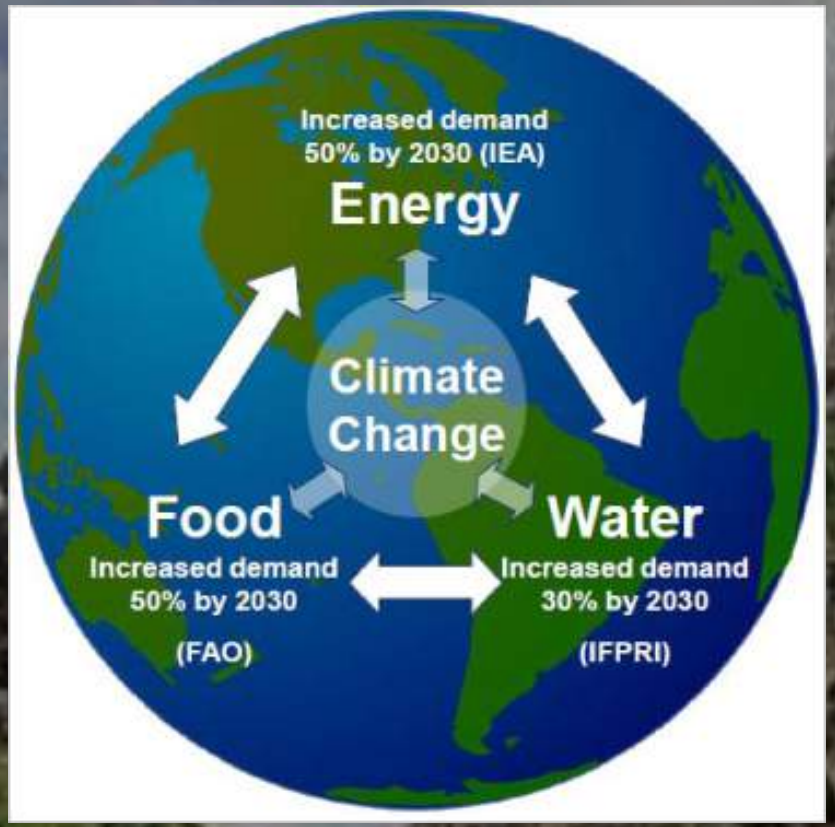
Incredible Edible Aireborough / Friends of Nunroyd Park


FEED
LEEDS
Bedford Fields Community Forest Garden



Woodhouse Moor in WWII


DIG ON
FOR
VICTORY
Your own vegetables
all the year round . . .
if you
DIG FOR VICTORY NOW



Paris Accord 2015

Must not exceed 2°C warming
over pre industrial levels
or, ideally, 1.5°C

IPCC SR15 Sept 2018

Must halve emissions by 2030
to have a chance of achieving 1.5°C

Professor Piers Forster

United Bank of Carbon

Committee on Climate Change

Priestley International Centre For Climate

"The Perfect Storm" by 2030

Former Government Chief Scientist
Sir John Beddington 2009

Climate change +
Resource depletion +
Economic chaos

7 billion people on the planet (for now)

We grow enough to feed 10 billion

But we waste 1/3 of what we produce

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If food waste was a country, it would be the third biggest greenhouse gas emitter behind the U.S. and China, at 3.3 billion tonnes of CO_2e

7 billion people on the planet (for now)

We grow enough to feed 10 billion

But we waste 1/3 of what we produce

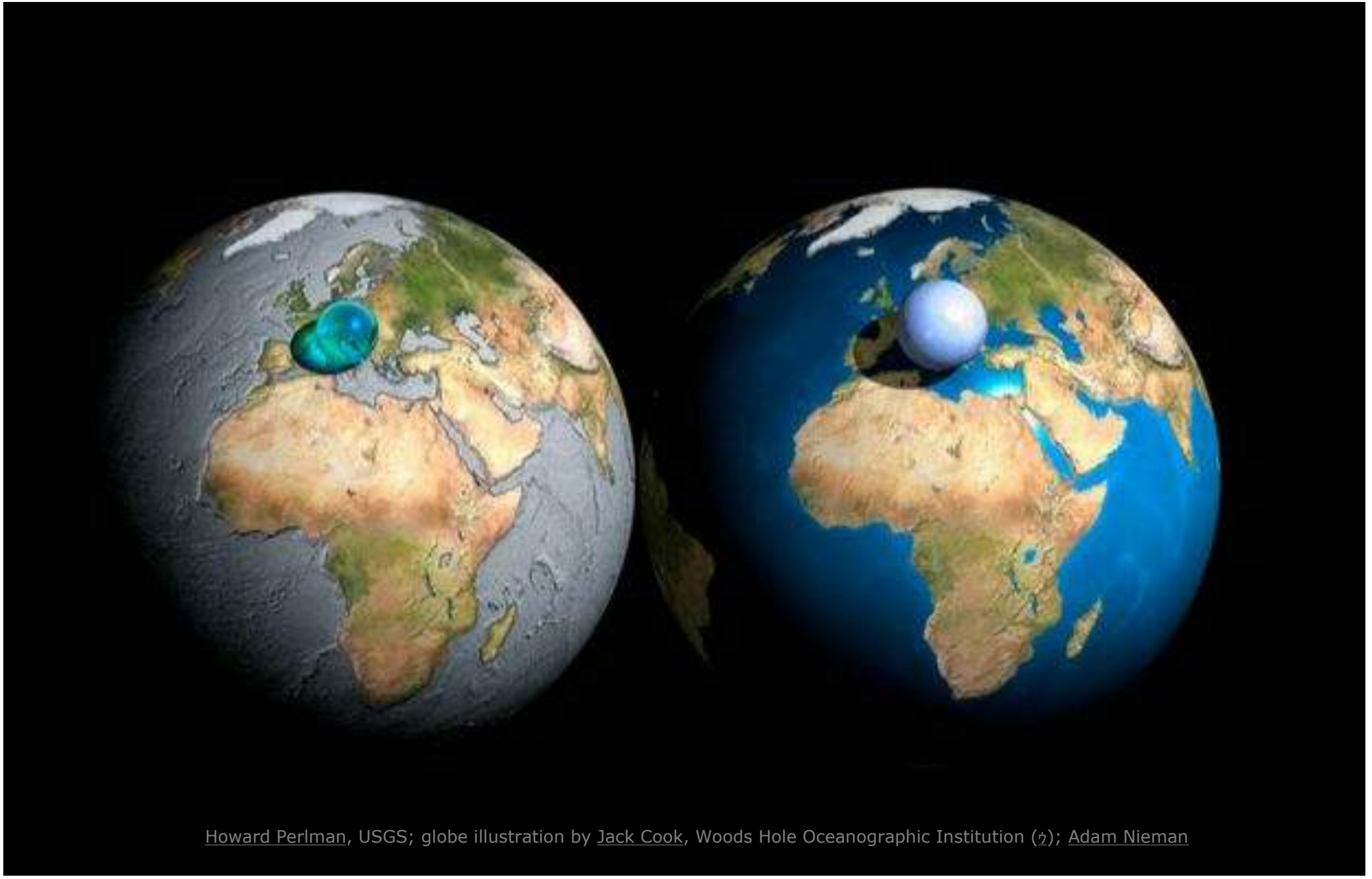
If food waste was a country, it would be the third biggest greenhouse gas emitter behind the U.S. and China, at 3.3 billion tonnes of CO_2e

Land is under stress from climate change, pollution

over-development, soil degradation etc.

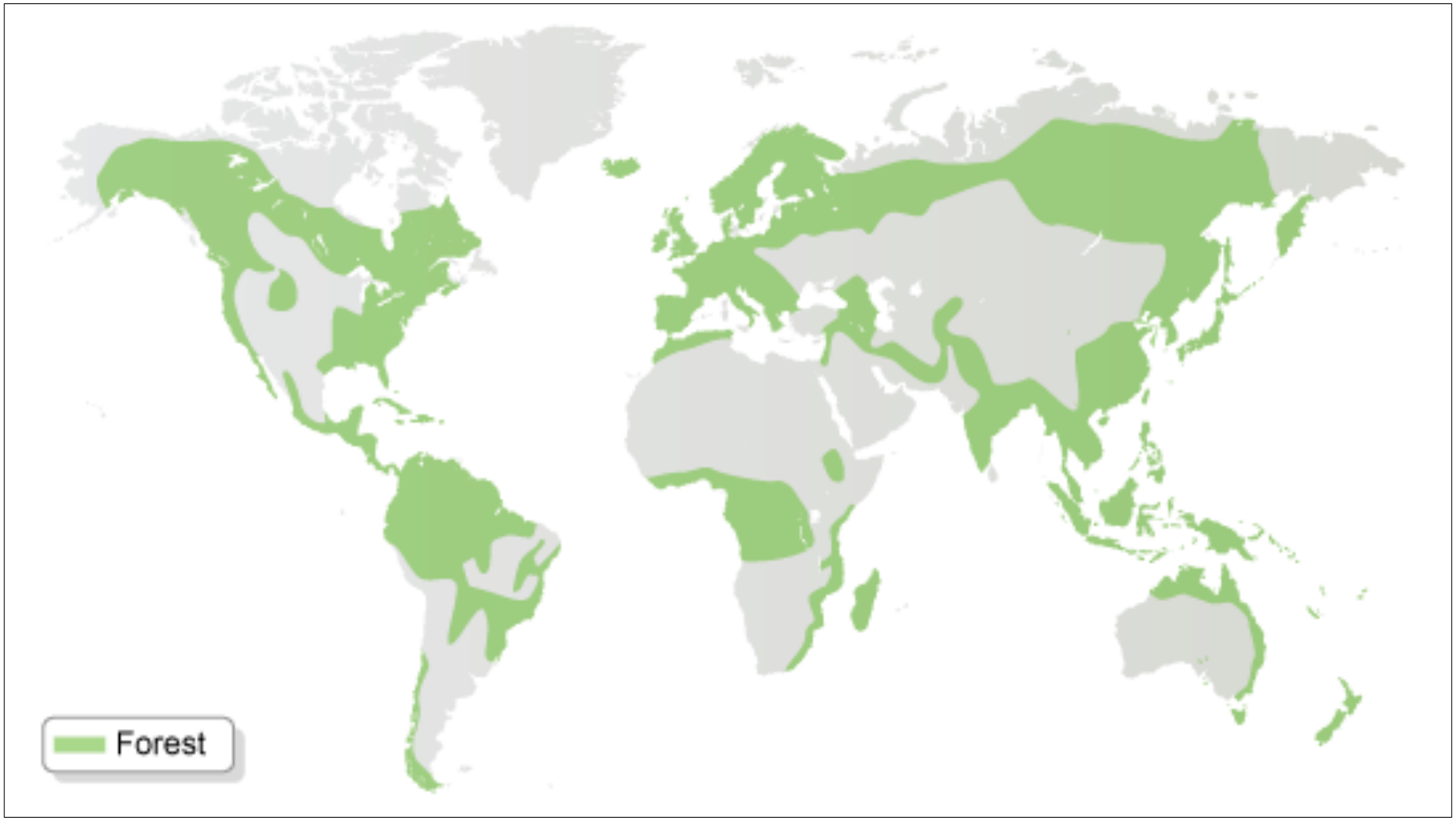
Need to maximise tree cover to capture CO_2

All the water and air on Earth



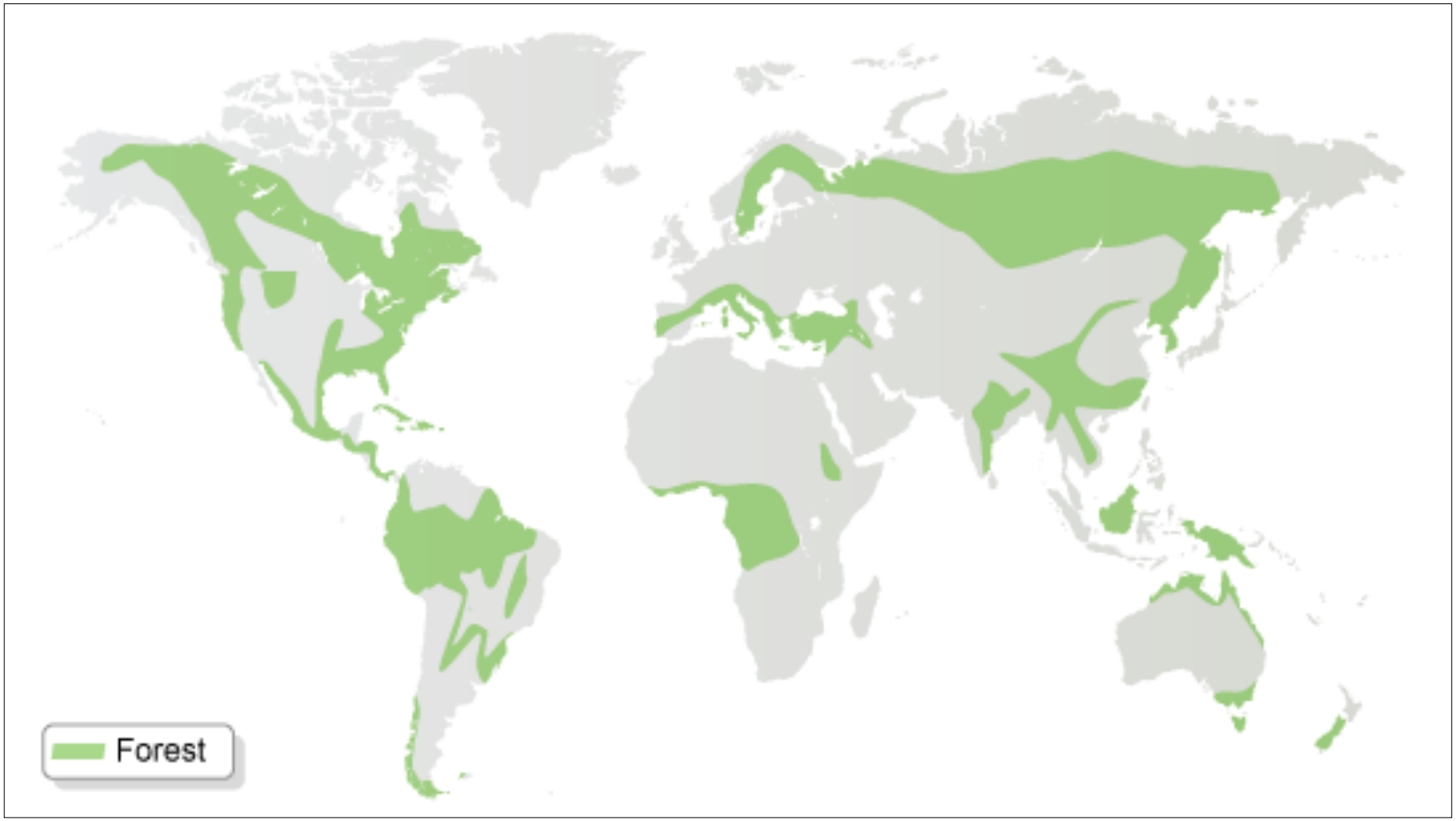
Howard Perlman, USGS; globe illustration by Jack Cook, Woods Hole Oceanographic Institution (דּ); Adam Nieman

Forests 8000 BC



http://www.bbc.co.uk/schools/gcsebitesize/science/aqa_pre_2011/evolution/humansrev4.shtml

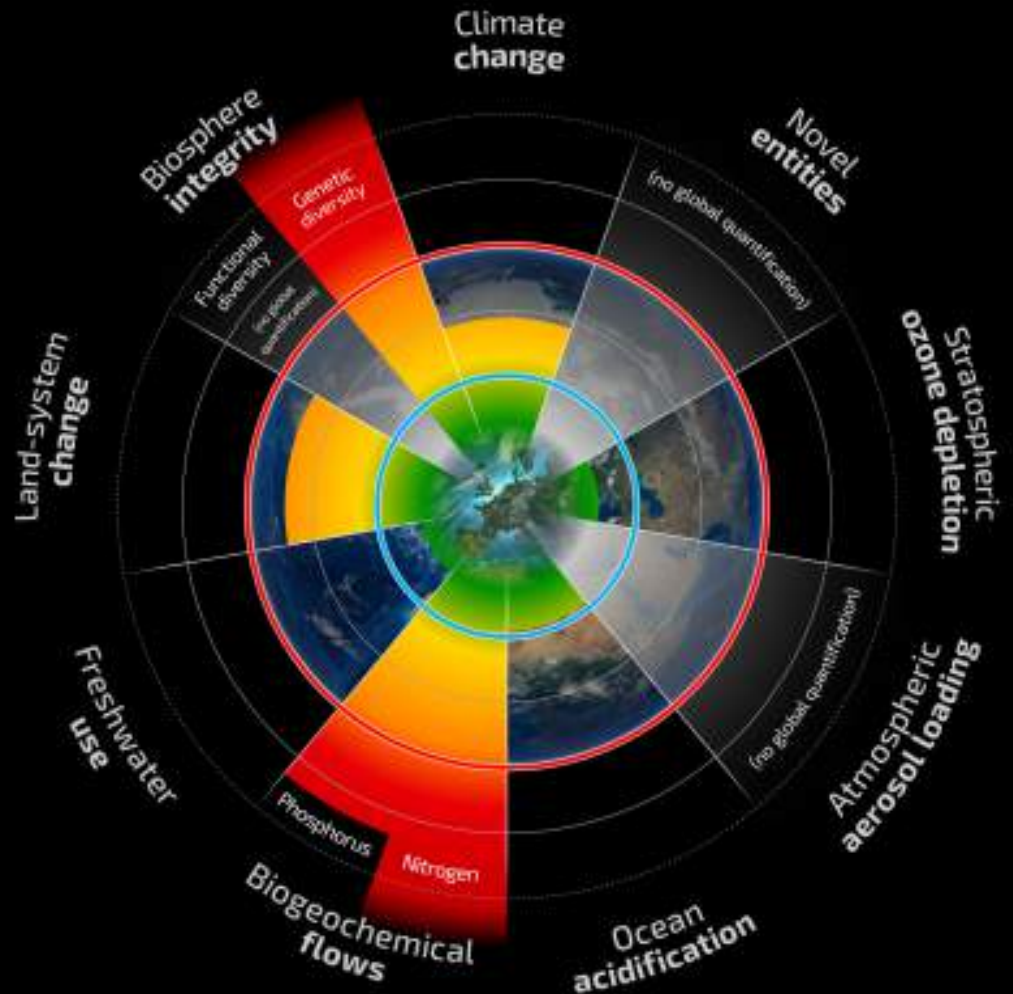
Forests 2000 AD



http://www.bbc.co.uk/schools/gcsebitesize/science/aqa_pre_2011/evolution/humansrev4.shtml

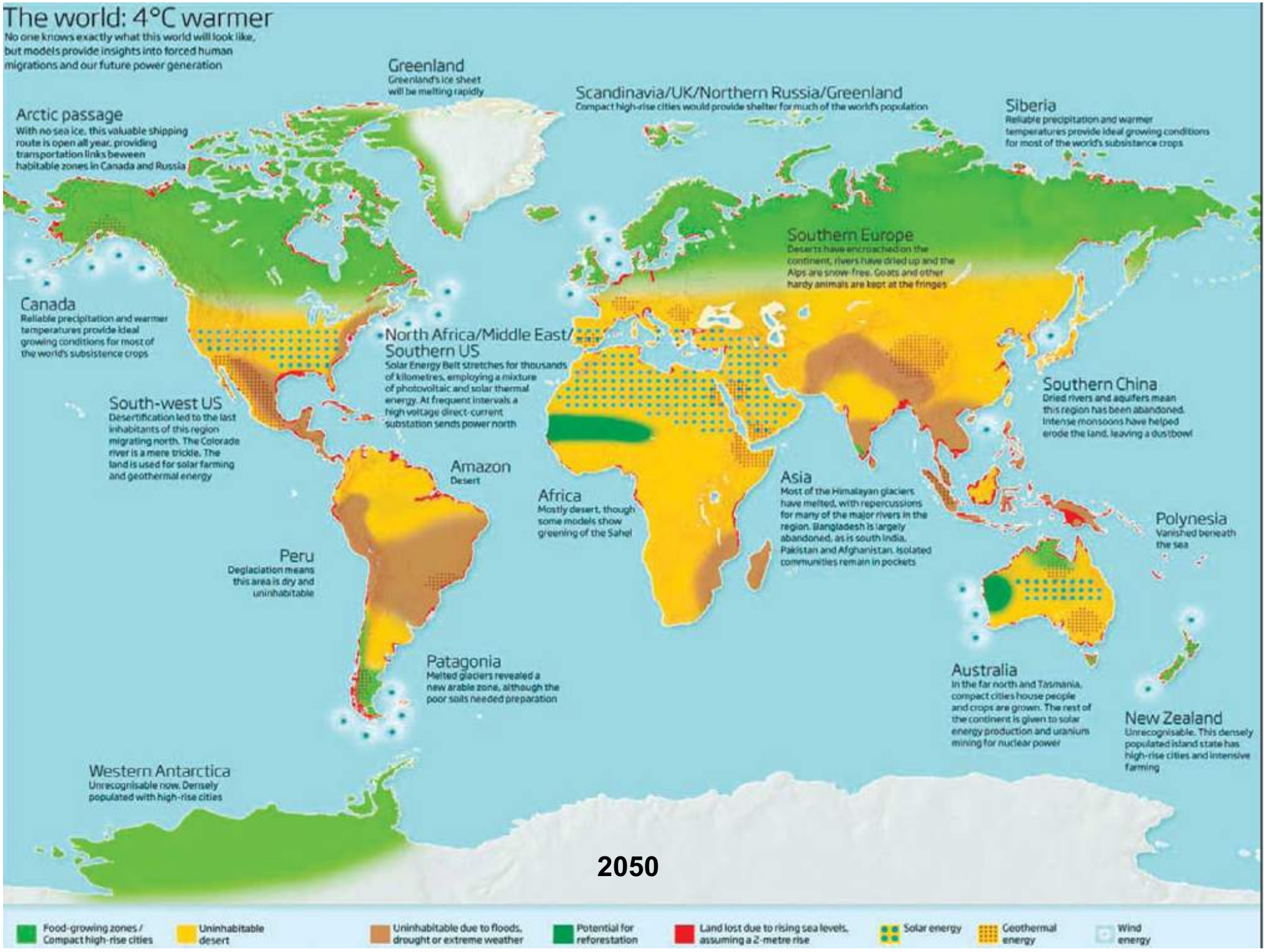
Planetary Boundaries

A safe operating space for humanity

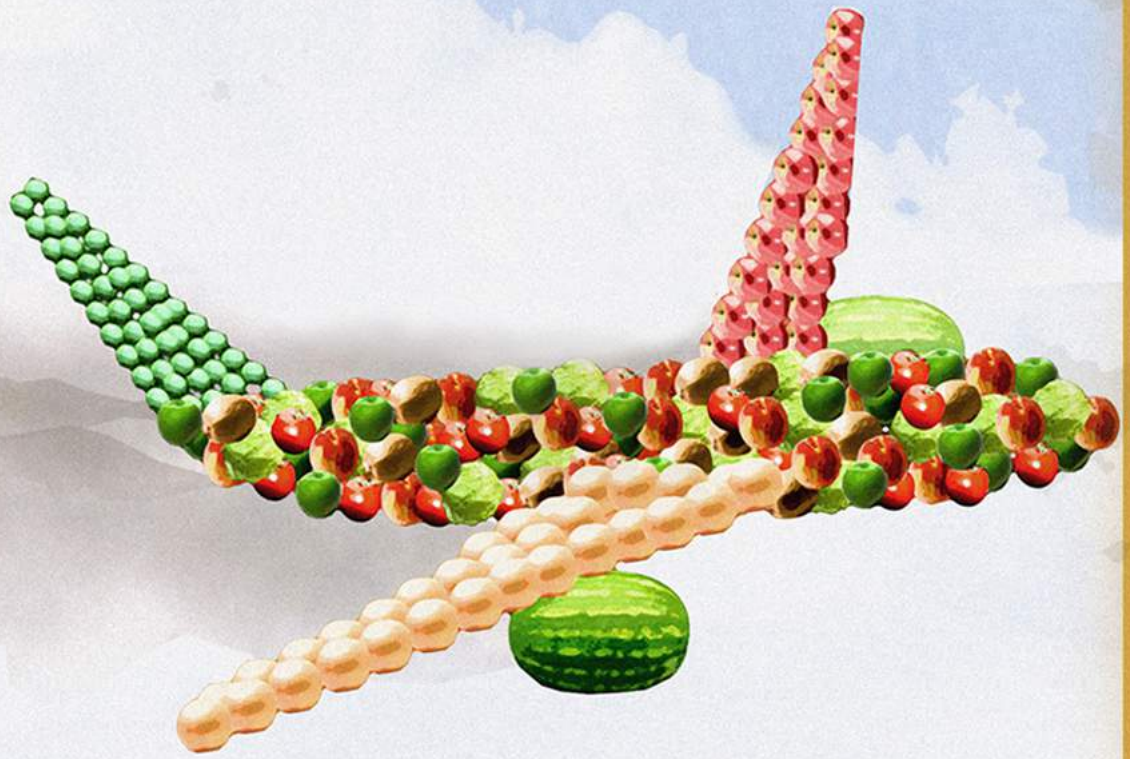


- Beyond zone of uncertainty (high risk)
- In zone of uncertainty (increasing risk)
- Below boundary (safe)
- Boundary not yet quantified

Source: Steffen et al. Planetary Boundaries: Guiding human development on a changing planet, Science, 16 January 2015.
Design: Globaia

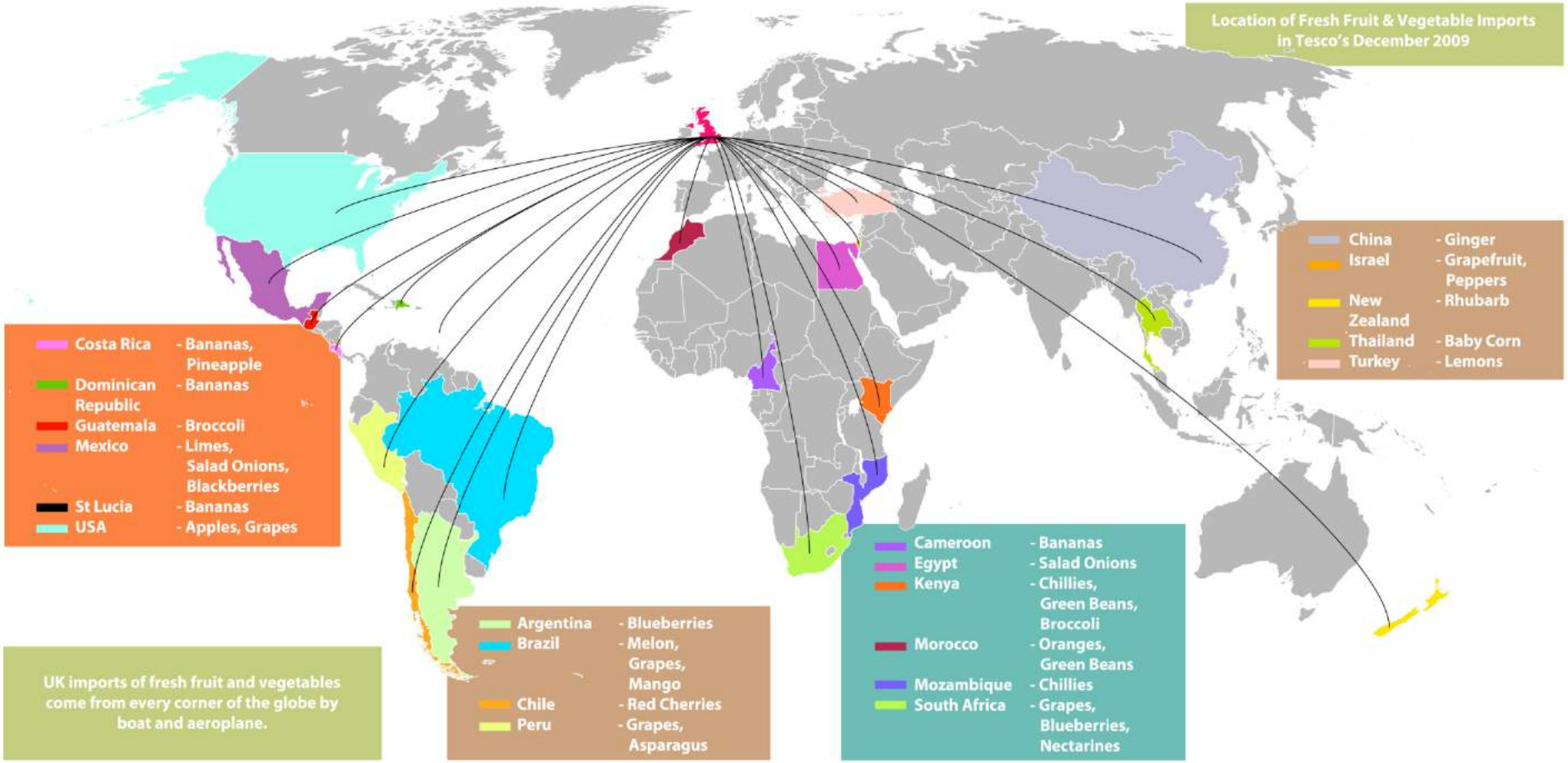

The world: 4°C warmer
No one knows exactly what this world will look like, but models provide insights into forced human migrations and our future power generation
Greenland
Greenland's ice sheet will be melting rapidly
Scandinavia/UK/Northern Russia/Greenland
Compact high-rise cities would provide shelter for much of the world's population
Siberia
Reliable precipitation and warmer temperatures provide ideal growing conditions for most of the world's subsistance crops
Arctic passage
With no sea ice, this valuable shipping route is open all year, providing transportation links beween habitable zones in Canada and Russia
Southern Europe
Deserts have encroached on the continent, rivers have dried up and the Alps are snow-free. Goats and other hardy animals are kept at the fringes
Canada
Reliable precipitation and warmer temperatures provide ideal growing conditions for most of the world's subsistence crops
North Africa/Middle East/ Southern US
Solar Energy Belt stretches for thousands of kilometres, employing a mixture of photovoltaic and solar thermal energy. At frequent intervals a high voltage direct-current substation sends power north
Southern China
Dried rivers and aquifers mean this region has been abandoned. Intense monsoons have helped erode the land, leaving a dustbowl
South-west US
Desertification led to the last inhabitants of this region migrating north. The Colorado river is a mere trickle. The land is used for solar farming and geothermal energy
Amazon
Desert
Africa
Mostly desert, though some models show greening of the Sahel
Asia
Most of the Himalayan glaciers have melted, with repercussions for many of the major rivers in the region. Bangladesh is largely abandoned, as is south India. Pakistan and Afghanistan. Isolated communities remain in pockets
Polynesia
Vanished beneath the sea
Peru
Deglaciation means this area is dry and uninhabitable
Patagonia
Melted glaciers revealed a new arable zone, although the poor soils needed preparation
Australia
In the far north and Tasmania, compact cities house people and crops are grown. The rest of the continent is given to solar energy production and uranium mining for nuclear power
New Zealand
Unrecognisable. This densely populated island state has high-rise cities and intensive farming
Western Antarctica
Unrecognisable now. Densely populated with high-rise cities
2050
Food-growing zones / Compact high-rise cities
Uninhabitable desert
Uninhabitable due to floods, drought or extreme weather
Potential for reforestation
Land lost due to rising sea levels, assuming a 2-metre rise
Solar energy
Geothermal energy
Wind energy

In the UK we Import 50% of our vegetables and 95% of our fruit....



Farmers cant grow all of your fruit and vegetables. Help your community grow enough to meet its needs.

Location of Fresh Produce Tesco December 2009



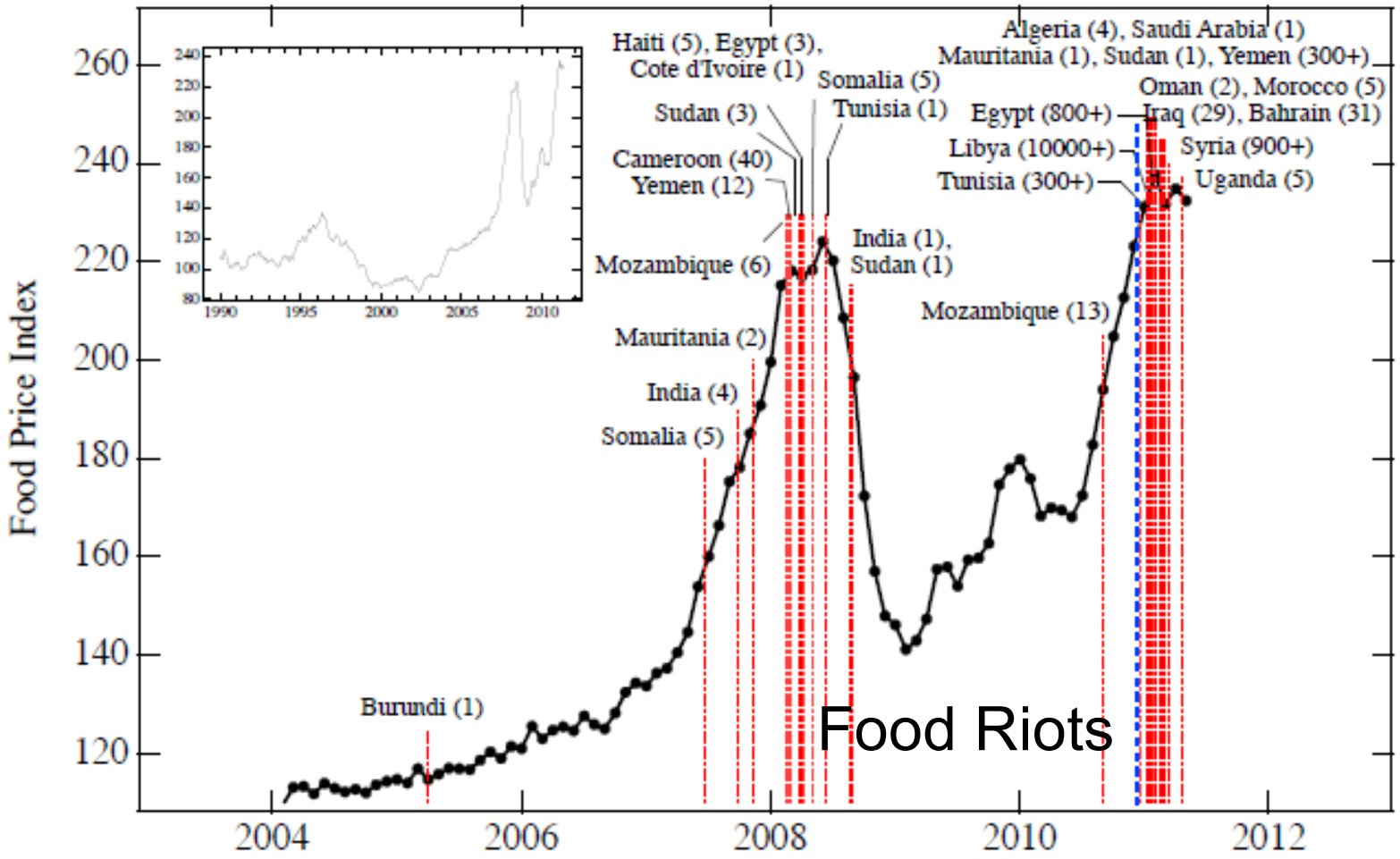
2015: Volume of global grain trade passing through key chokepoints

A disruption at one or more of these chokepoints could have major impacts. Global food prices, supply in local markets, the livelihoods of traders and farmers, and the provision of food aid to vulnerable communities all depend on the continued movement of goods across borders and oceans.

Chokepoint disruptions: Examples of disruptions between 2002 and 2017

Food is also a security issue

Food Prices vs Social Unrest



September 2012: FPI = 216

Slide from Les Firbank TRUG

Leeds food footprint. The food footprint of a city or town is defined as the total amount of land required to meet its basic food needs. The present Leeds food footprint extends to an area of 371,241 acres. This is an area more than double the total geographic area of Leeds, which is 136,328 acres. The Leeds food footprint was calculated using a 0.494-ɹ-acre per person food footprint, which is based on 0.2 hectares per person from Fairlie's livestock permaculture model. This individua food footprint (0.494 acres) was then multiplied by the total population of Leeds (751,500) to arrive at a total of **371,241 acres**. As is evident in *Figure 7* below, the amount of land required to feed Leeds extends far beyond its boundaries and into other surrounding communities.)

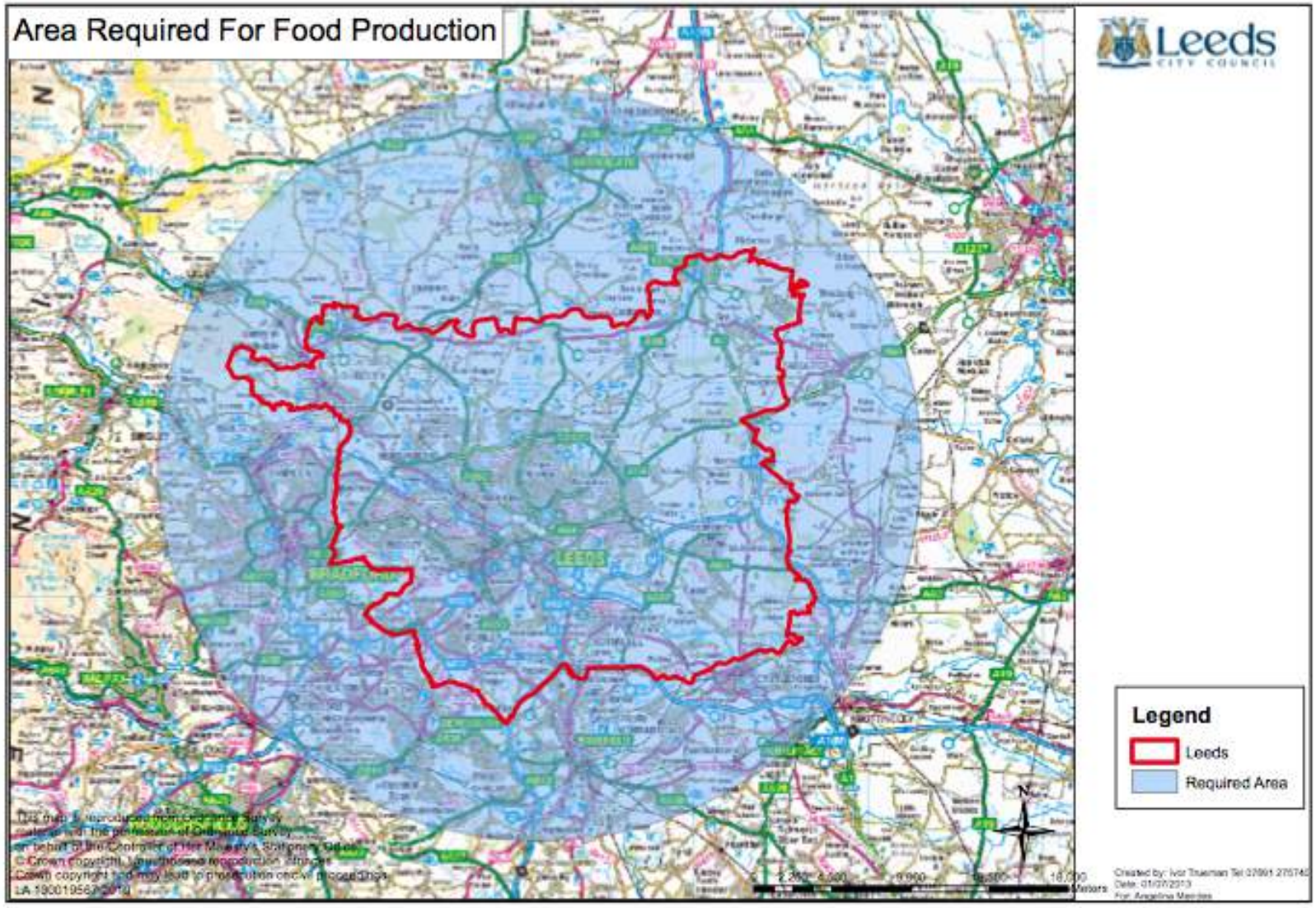


Figure 7:

Leeds Food Footprint

(LCC 2013)

Leeds City Council

University of Leeds

Permaculture UK

(Mendes; Degree Program: MSc Sustainability Environmental Consultancy & Project Management

We may need to grow food wherever we can!

Food Growing in Parks: A Guide for Councils

SHARED ASSETS

sustain
the alliance for better food and farming

Purpose of the guide

Local authorities are rethinking the future of parks. This involves both the 'pull' from local people who want to be more involved and empowered to take more responsibility for them, as well as the 'push' to reduce costs and secure new sources of income. Councils also recognise their assets, such as public parks can be managed to contribute to a broad range of outcomes such as public health and the local economy.

With the growth in public interest in food growing and many positive examples of food growing projects in public parks, more councils are showing an interest in the potential of these areas as sites for food production.

This guide aims to encourage more food growing in parks whilst also helping decision makers understand the options available. It draws links with the rethinking parks and public health agendas[1] and explores opportunities for councils to consider. Setting up and running food growing in parks is not a one-size-fits all solution and needs consideration to ensure it brings the desired outcome for park users and decision makers.

With the guide, we have illustrated established good practice of food growing in parks across the UK, where areas dedicated to growing food in spaces range from pocket parks to The Royal Parks. As local authorities look for new models of managing parks, food growing is likely to increase due to the multiple benefits that it can provide. It helps councils decide which model of food growing would be appropriate, taking into consideration their own capacity, the strategic needs of the area, the types of parks and the enthusiasm of local communities. The shared experience across a range of authorities provides detailed understanding of the application of food growing in public park settings. It also provides a key message to councils leaders to recognise how parks deliver a wide range of public benefits, rather than to look at parks as cost centres.

Interviews with growers at 12 food growing spaces in urban public parks contributed to case studies drawn from across the country, in different types of parks with contrasting visitor catchments. Project leaders described the organisation of their project and their relationships with their local councils. We have captured issues and opportunities of relevance to local councils in order to encourage food growing in public parks and also dispel some myths!

This guide will help:

- Councillors, particularly portfolio holders with responsibilities for budgets, the public realm and for public health, identifying the public benefits of food growing;
- Council park managers, providing confidence that food growing can be successfully integrated into parks;
- Friends of Parks groups, community and social enterprises and community groups involved in, or considering, food growing projects, who can learn from and share experiences of community projects across the UK.

We thank staff and volunteers from the case study parks and councils for sharing their experience.

Duthie Park	Aberdeen City Council
Central Park	Barking and Dagenham London Borough
Preston Park	Brighton and Hove City Council
Wish Park	Brighton and Hove City Council
Dame Emily Park	Bristol City Council
Philips Park	Bury Metropolitan Council
Bute Park	Cardiff City Council
Walpole Park	Ealing London Borough
Scotch Quarry Park	Lancaster City Council
Walton Hall Park	Liverpool City Council
Heaton Park	Manchester City Council
Albert Park	Middlesbrough Borough Council

Why grow food in parks?

Synergy with local priorities

Growing food within public spaces, particularly in urban areas and for those without gardens, creates great potential for different groups to benefit from parks. The public health benefits are a particularly important consideration when planning public open spaces as it is widely recognised that gardening and food growing has a positive impact on people's health and wellbeing[5].

Food growing can not only be incorporated into park management plans, it can also be linked into strategies for play and events. For example, the importance of informal and natural play can be realised in food growing areas and edible planting. Food can also be integrated into educational visits and forest schools based in public spaces.

Similarly, events programmes can utilise existing food growing assets and relationships, such as the partnerships with local groups. This can drive local involvement in existing initiatives or stimulate appetite for new ones. Food and food growing can become an important theme alongside others within the parks, such as music and creative activities.

This guide looks at social, economic and environmental benefits of gardening and specifically food growing which include:

- improved psychological health;
- increased physical activity contributing to maintaining a healthy weight and reducing the risk of obesity;
- improved social interactions and community cohesion;
- improved educational outcomes;
- mitigation of impacts of climate change; and
- local economic resilience.

Health benefits of food growing

Regular contact with plants and the natural environment can improve mental wellbeing and, combined with the activity of growing food, it can help improve physical health for a wide range of abilities and ages. Community food growing introduces residents to a way of life which can help improve wellbeing in the longer term. It provides access to locally grown, fresh produce, helps increase consumption of fruit and vegetables, as well as improving attitudes to healthy eating.

Evidence of the impact of gardens and gardening on health is closely related to the wide array of evidence on 'green spaces and health' and applies in general to gardens. Looking at the evidence it is clear that access to nature is a critical part of a healthy community. In recent times, habits and behaviours have increasingly created sedentary lifestyles and levels of stress resulting in poor physical and mental health. Visits to nature are associated with decreases in self-reported stress (Annerstedt, 2011[6]) and a study in the Netherlands showed that every 10% increase in access to green space translated in an improvement in health equivalent to being five years younger (de Vries, et al 2003) with similar benefits found by studies in Canada (Villeneuve et al 2012) and Japan (Takano 2002)[7].

There is also some evidence to suggest a link between obesity and access to green spaces, although the evidence is not always consistent.[8] Natural England has become increasingly interested in this topic, leading them to set up the Outdoors for All working group and research group and publishing research and reports on the subject[9].

The therapeutic benefits of food growing and gardening when led by a trained therapist for a group with defined needs, is well evaluated through networks such as Social Farms & Gardens (previously Care Farming UK). Social and therapeutic horticulture can benefit:

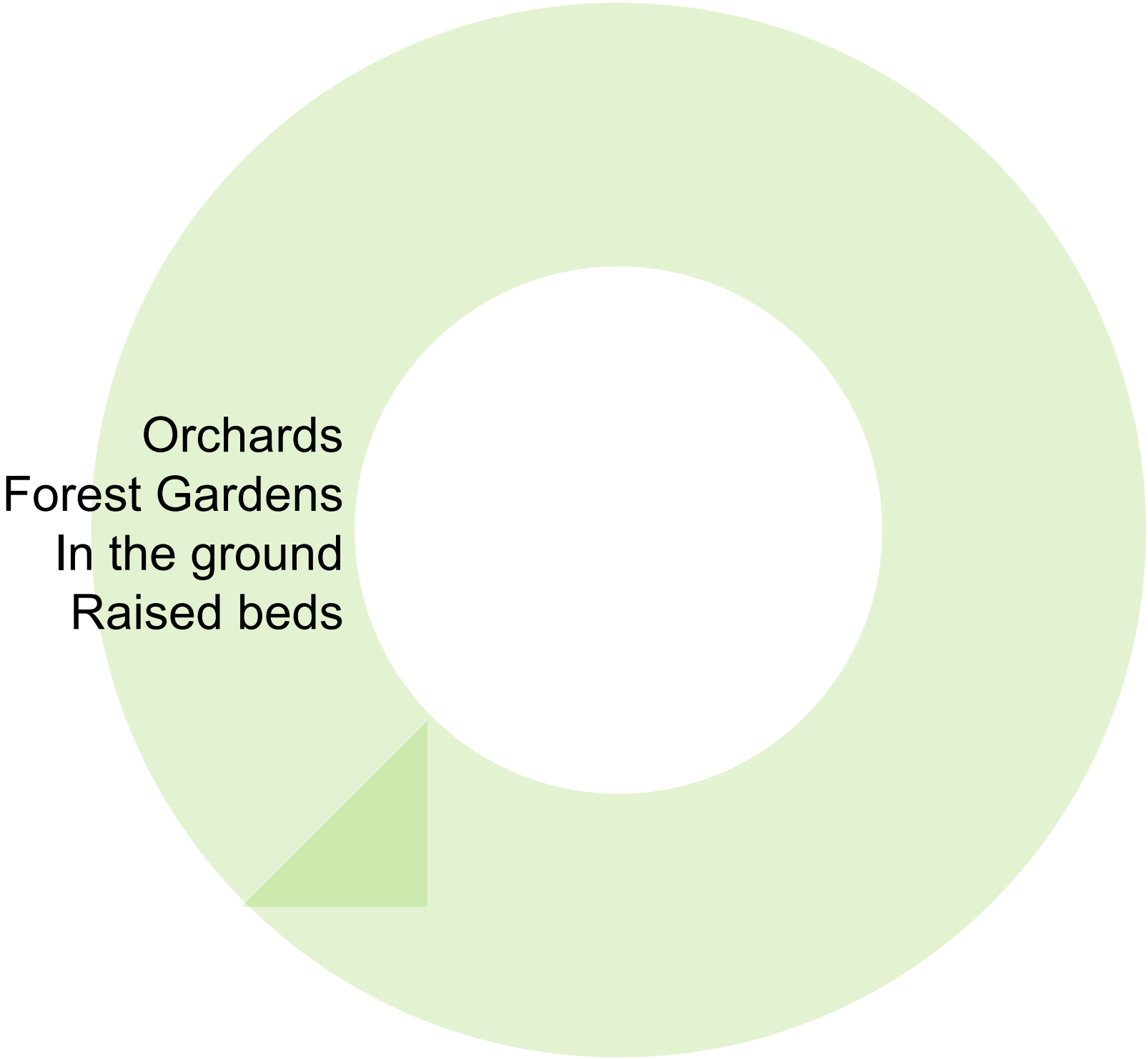
- *Mental health:* gardening and related activities have long been advocated in mental health programmes.
- *Physical health:* health problems centred on sedentary lifestyles, obesity and even old age have been alleviated or tackled with gardening programmes.
- *Substance misusers:* therapeutic and manual work is increasingly being used to include drug and alcohol

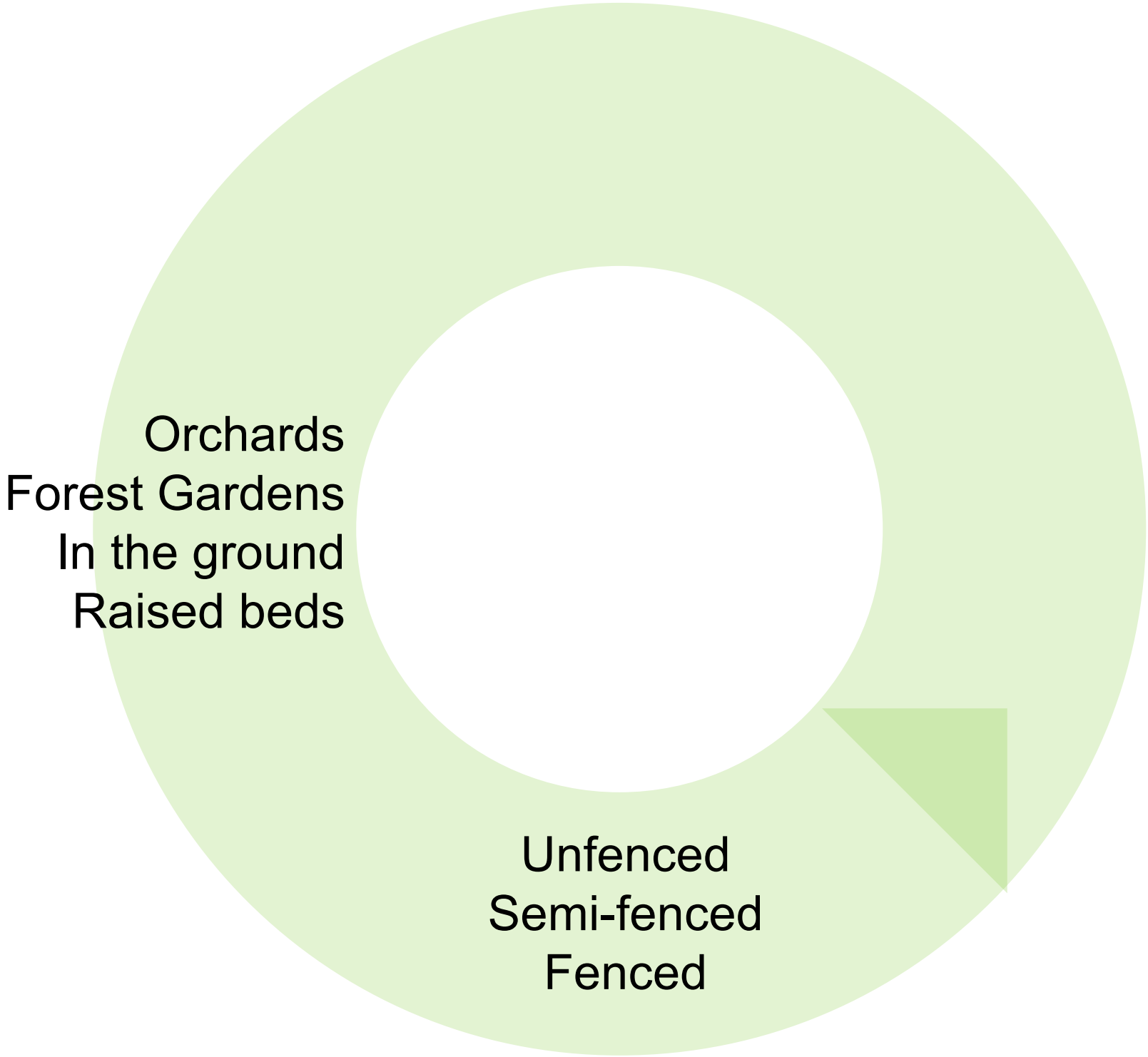
Typology - Different types of food growing spaces in parks

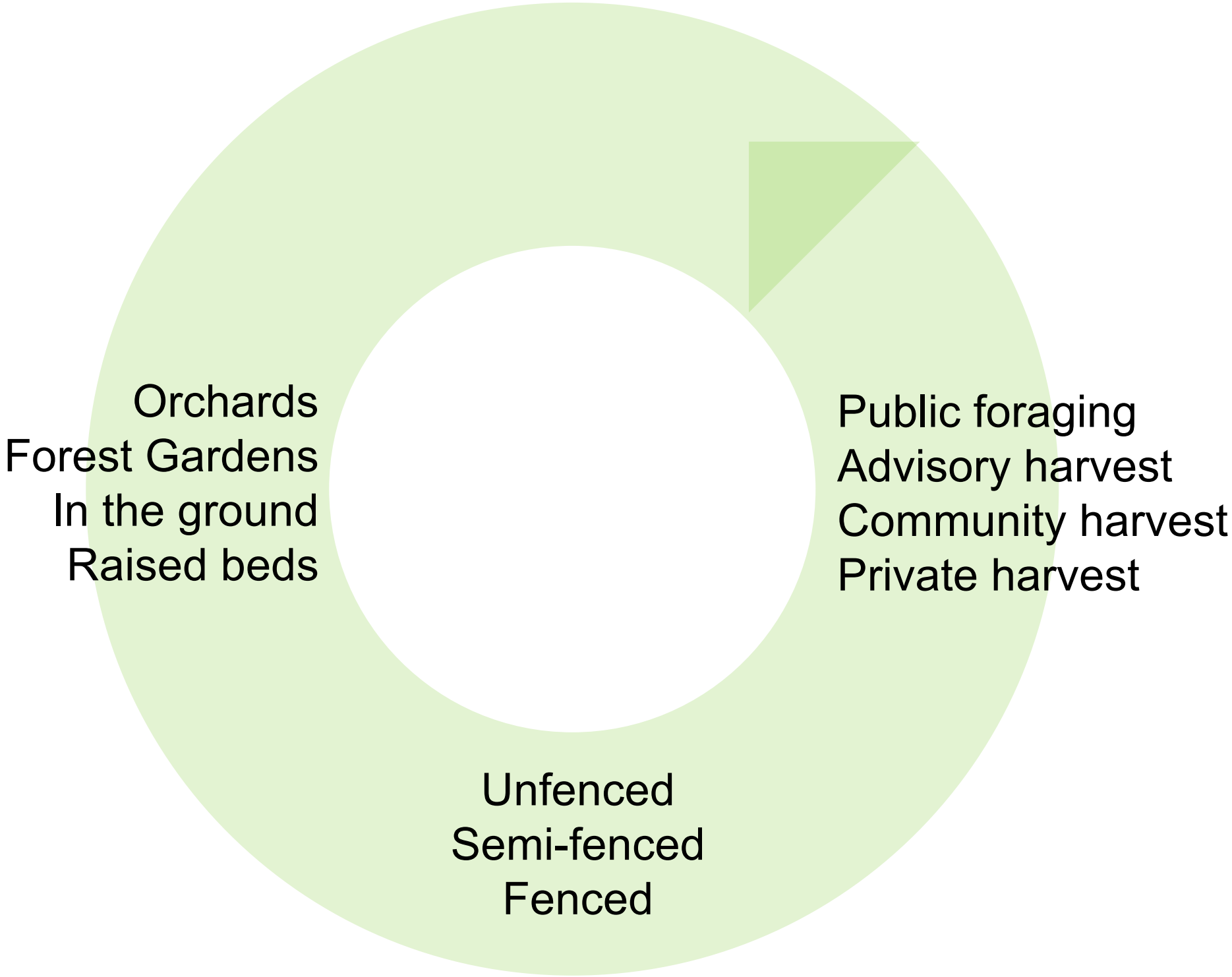
Type of growing space		Description	Benefits	Limitations	Potential stakeholder / partners
	1. Productive landscapes	Edible plants incorporated into existing park design, planting and maintenance schemes	• Low maintenance and reduced long term cost. • Raises awareness / first introduction to fresh produce. • Lends itself to foraging and walking groups. • Integration into landscape design of park.	• Limited educational opportunities • Less engagement	Community group or voluntary organisation including wildlife organisations and walking groups Small scale food enterprises
A. Open access	**2. Edible Planting**	Area of park utilised for small scale lower profile community growing	• Low maintenance and reduced long term cost. • Can build a 'culture' of food growing for future interest. • Raises awareness / first introduction to fresh produce. • Introduces variety, activity and horticultural interest. • Productive use of unmanaged, vacant or overgrown sites.	• Limited educational opportunities • Small scale / restricted by lack of facilities • Dependant on level of interest of local residents	Community group or voluntary organisation, Friends of parks groups Small scale food enterprises
	3 Open access garden	Area of park utilised for community growing. (May have notional low fencing or mesh but this will generally be unlocked.)	• Encourages interaction as open to the community. • Greater management and community involvement. • Notional security clarifies special purpose of the area.	• Open to vandalism and petty theft, which can lead to frustration.	Community group or voluntary organisation Friends of parks groups Small scale food enterprises
	4. Orchard / Forest Garden	Planting of fruit trees / can include perennial under-planting of edible plants	• Provides opportunity for community engagement. • Can be open access. • More variety of food growing can be integrated with the trees, e.g. underplanting of forest garden plants. • Integration into landscape design of park.	• Varieties require careful selection and maintenance plan, particularly watering in early years. • Take a number of years to produce harvest	Community group or voluntary organisation Friends of parks groups Education provider Small scale food enterprises
	5. Educational growing projects	Open area of park growing mixed food and flowers to demonstrate benefits of food growing. Can take various layouts and mix trees, perennials and annuals. Regular facilitated sessions.	• Have potential for wider reach e.g. schools and families. • Good engagement tool/ develop capacity/ skills. • Encourage participation regular activities and interpretation materials. • Often host regular volunteer days.	• Require resources to set up and run • Open to the 'elements' (human& animal) e.g. vandalism/ interference • Harvest can be taken so limited benefit for volunteers	Education provider Community group or voluntary organisation Friends of parks groups Small scale food enterprise
	6. Growing projects –	Gated area of park growing to demonstrate benefits	• Demonstrate health and other benefits of food growing.	• Is not fully public accessible, need to consider opening	Community group or voluntary organisation

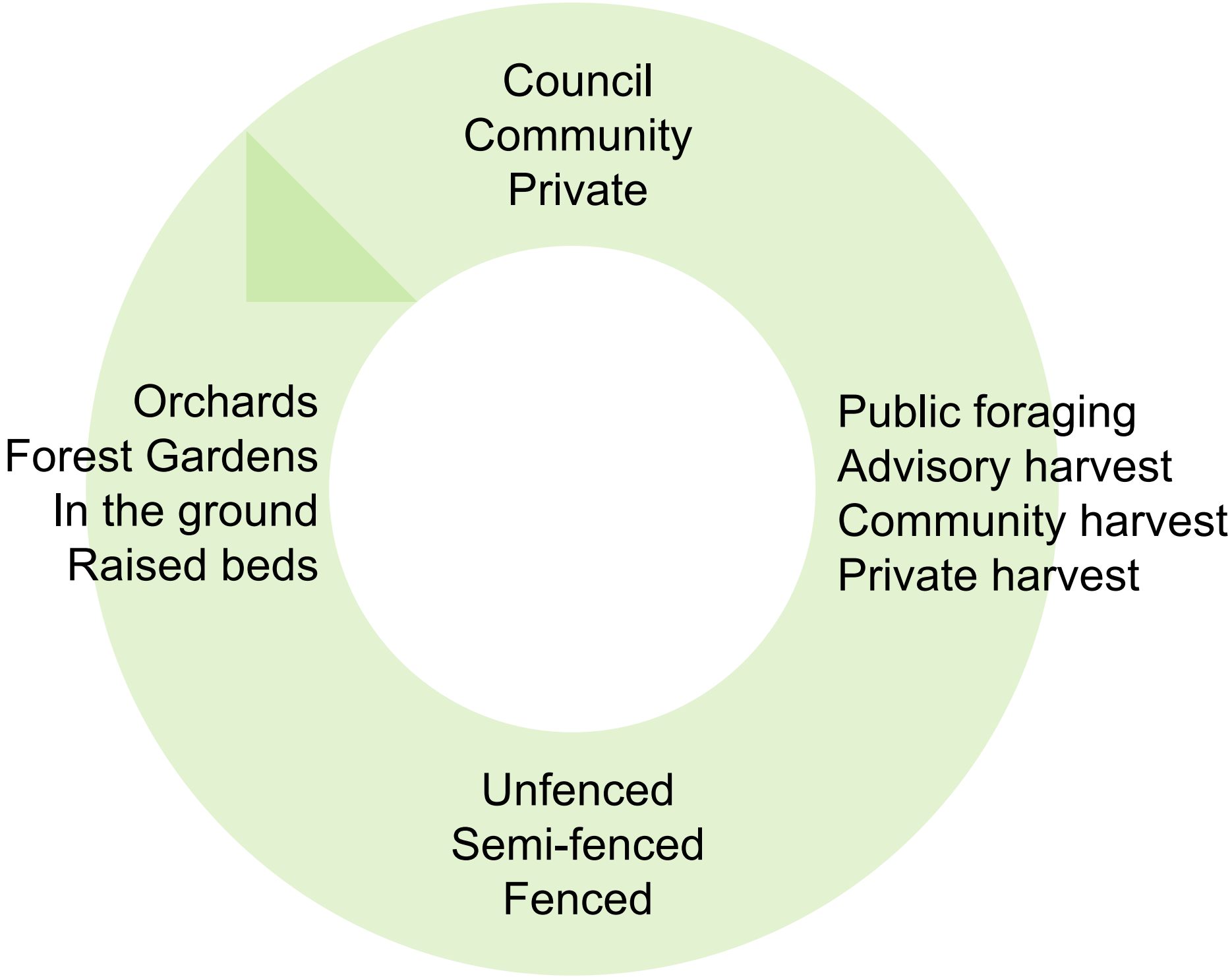
			More variety of food growing can be integrated with the trees, e.g. underplanting of forest garden plants. • Integration into landscape design of park.	• Take a number of years to produce harvest	Small scale food enterprises
	5. Educational growing projects	Open area of park growing mixed food and flowers to demonstrate benefits of food growing. Can take various layouts and mix trees, perennials and annuals. Regular facilitated sessions.	• Have potential for wider reach e.g. schools and families. • Good engagement tool/ develop capacity/ skills. • Encourage participation regular activities and interpretation materials. • Often host regular volunteer days.	• Require resources to set up and run • Open to the 'elements' (human& animal) e.g. vandalism/ interference • Harvest can be taken so limited benefit for volunteers	Education provider Community group or voluntary organisation Friends of parks groups Small scale food enterprise
B. Gated access	**6. Growing projects – community run or educational**	Gated area of park growing to demonstrate benefits of food growing. Can take various layouts and mix trees, flowers, perennials and annuals. Regular facilitated sessions. Works well in conjunction with a facility or building.	• Demonstrate health and other benefits of food growing. • Provides formal and informal educational qualifications • Can often be 'open' for public access, subject to availability of staff/volunteers • Level of engagement can be high and reach groups who would not traditionally use the park. May be for specific client groups eg refugees, mental health service users.	• Is not fully public accessible, need to consider opening hours, but requirements for open days can be built in. • Gives impression of exclusivity which organisers try to overcome. • Requires a suitable space. • Cost of fencing. • Fencing can indicate value and therefore attract vandalism and theft.	Community group or voluntary organisation Friends of parks groups
	7. Productive Growing *enterprises	Larger growing spaces, set out to maximise productivity and at a scale to enable significant harvest that can be sold. Projects would be gated, with access through open days. Run by paid staff – or a grower earning an income from the produce - with experience, often offer opportunity for training.	• Generate revenue for lead partner to help with sustainability. • Provide healthy, locally produced food. • Beneficial use of vacated council premises (depots & nurseries).	• Needs capital investment. • Most food 'sold' eg to supply park café, local restaurants, box schemes. Many social enterprises will encourage residents / park users to buy. • Access has to be structured e.g. volunteering schemes, training sessions, can require open days • Limited revenue for the council through leases due to challenges of making profit from food economy.	Community group or voluntary organisation. Social enterprise, , training organisations, horticultural colleges
	8. Individual plots	Small "allotments" allocated to individuals or groups.	• Generate limited income	• Removes land from public use although requirements for open days can be built in	Allotment Societies Residents groups

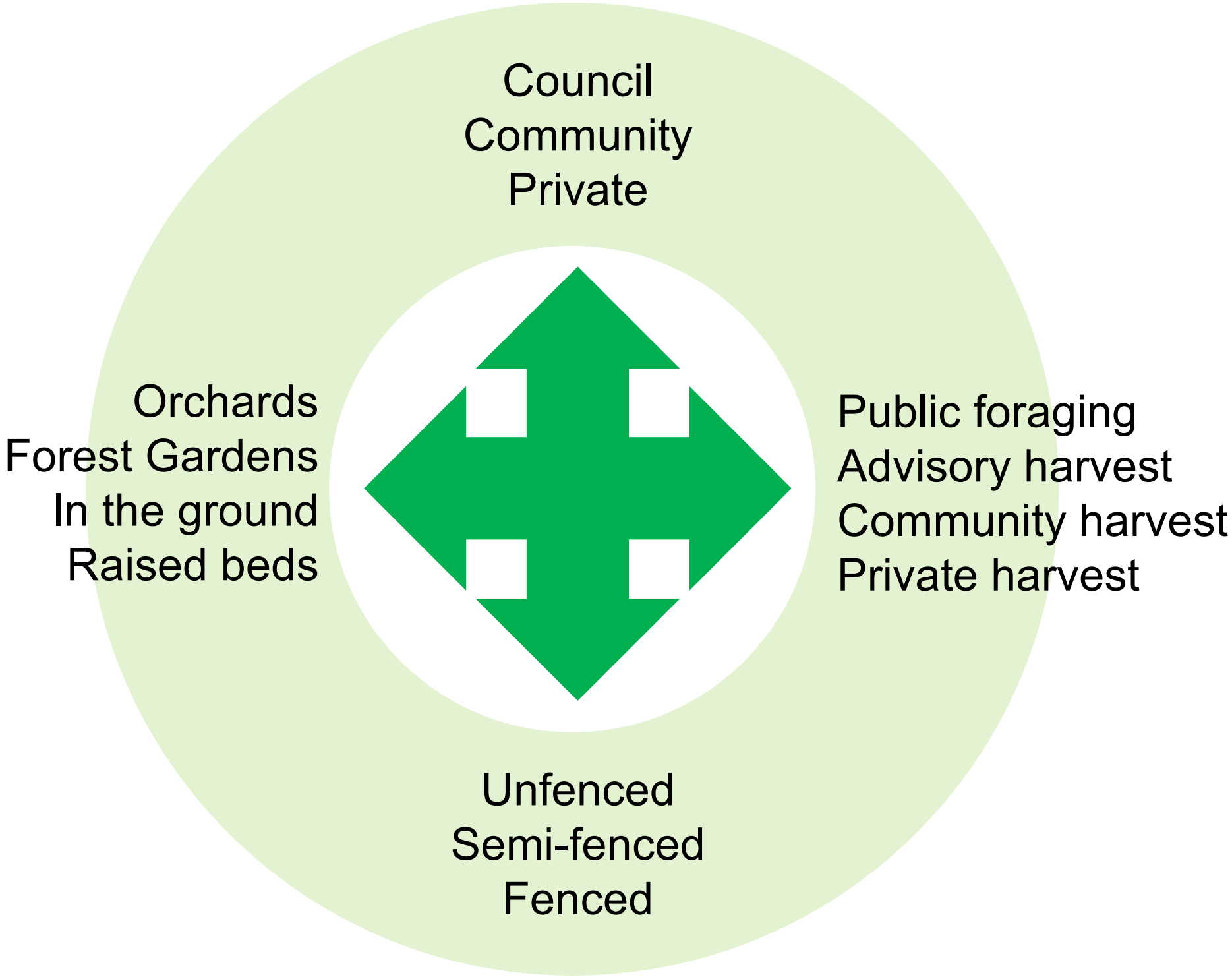
**Note: purely commercial growing projects within park land would require significant land and would be not accessible to the public, severely limiting of social and community activity that social benefit. Creating profitable primary production food businesses are not recommended or discussed within this document.*


Orchards
Forest Gardens
In the ground
Raised beds


Orchards
Forest Gardens
In the ground
Raised beds
Unfenced
Semi-fenced
Fenced


Orchards
Forest Gardens
In the ground
Raised beds
Public foraging
Advisory harvest
Community harvest
Private harvest
Unfenced
Semi-fenced
Fenced


Council
Community
Private
Orchards
Forest Gardens
In the ground
Raised beds
Public foraging
Advisory harvest
Community harvest
Private harvest
Unfenced
Semi-fenced
Fenced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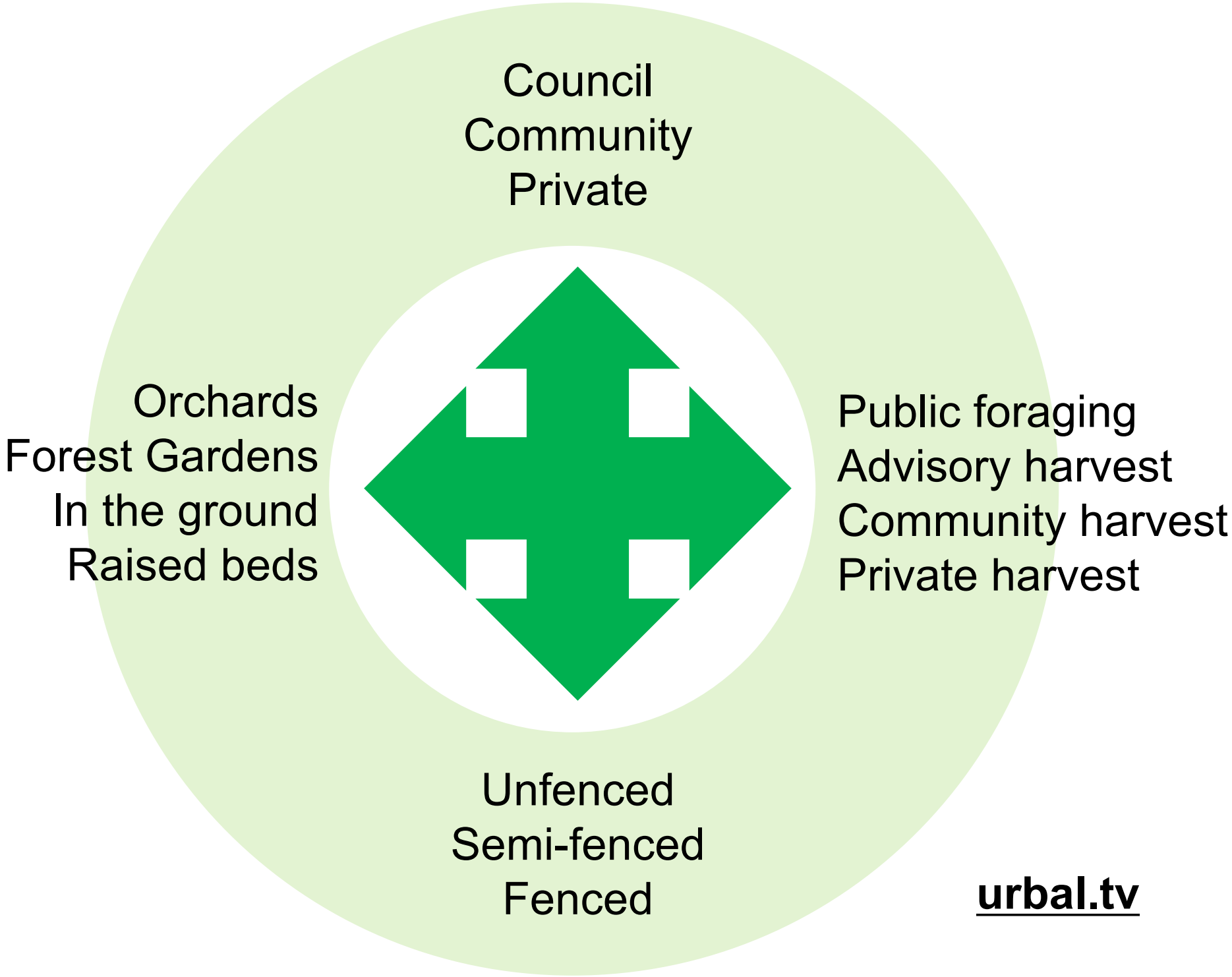
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