

Urban Issues and Challenges 2

You must be able to:

- Understand why urban areas need to be developed for the future in a sustainable way
- Explain how sustainable living involves a number of changes to current urban lifestyles.

Sustainable Urban Living

- City inputs include food and water, fuels and energy, building materials and consumer goods.
- City outputs include sewage, exhaust gases, household waste, industrial waste and building waste.
- In the UK, 90% of people live in urban areas.
- Cities use huge volumes of resources and produce vast amounts of waste. However, urban areas can be developed in a **sustainable** way.
- Sustainable living means allowing people to meet their needs today without compromising the ability of future generations to meet their needs.
- Sustainable urban living needs to consider ways for people in towns and cities to adapt to climate change and use strategies to mitigate it.

Key Point

Many current trends in urban living are not sustainable. Sustainable urban living includes methods of adaptation to, and mitigation of, climate change.

Ways of Becoming More Sustainable

1. Housing

- Low energy use, e.g. solar heating, efficient insulation, triple glazing, water and electricity meters, low flow taps, etc.
- Affordable prices and low rents.
- Shared housing.
- Passive housing – kept warm using heat from people, pets and natural lighting.

2. Transport

- Car-sharing schemes.
- Vehicle-restricted areas to reduce congestion and pollution.
- Public transport (including buses, trains and trams) organised into a diverse, efficient and integrated rapid transit system.
- Alternative cleaner fuel sources, e.g. hydrogen, electricity. New electric buses in Bristol are designed to charge with power when parked over induction plates and these could eventually be installed along bus routes to allow the vehicles to charge on the move.



- Bus lanes.
- Park-and-ride systems.
- Increased bicycle use. A system of public cycle hire was introduced in London in 2010. By 2012, 8000 bicycles had been made available for hire from 570 docking stations located around the city.
- Pedestrian walkways and cycle paths, e.g. London's cycle 'super-highways'.

3. Resource Management

- Aim to be '**carbon neutral**' – a town produces as much energy as it consumes.
- Efficient recycling.
- Reduction of household and industrial waste.
- Composting of food and green waste, which counters global warming by reducing methane emissions.
- 'Greywater' and rainwater are collected for domestic use.
- Sedum moss roofing to reduce impermeable surfaces, increase lag times and reduce flooding.

4. Services and Employment

- Daily needs like shops and schools are within walking distance of the population.
- A range of job opportunities for residents.

5. Environment

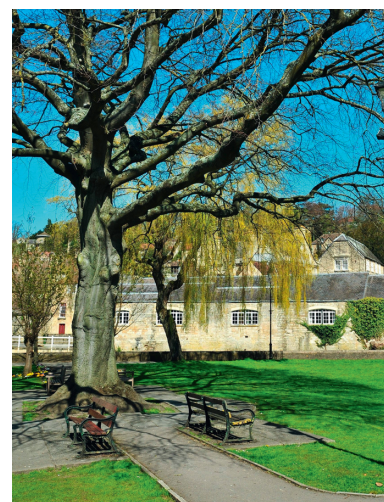
- 'Urban greening' – a target of 40% green space, parkland and trees.
- Urban forests, e.g. Adelaide in Australia.
- Urban agriculture – vertical farming, allotments and rooftop gardens with the aim of reducing 'food miles'.
- Use of '**brownfield sites**' (previously used for industry) for development.
- Green belt of natural space surrounding a settlement.

Quick Test

1. Explain two ways in which sustainable housing could help to manage climate change.
2. Explain three ways in which modern transport systems can be made more sustainable.
3. Describe two ways in which improved waste and water management can make urban life more sustainable.

Key Point

Changes to housing and transport can make massive energy savings and help to manage climate change.



Key Point

Sustainable modern cities are self-contained, self-supporting and help to manage climate change.

Key Words

sustainable
carbon neutral
brownfield site