

# Settlement Revision Guide

*Updated: August 2025*



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## Topic 1: How do urban areas differ from rural areas?

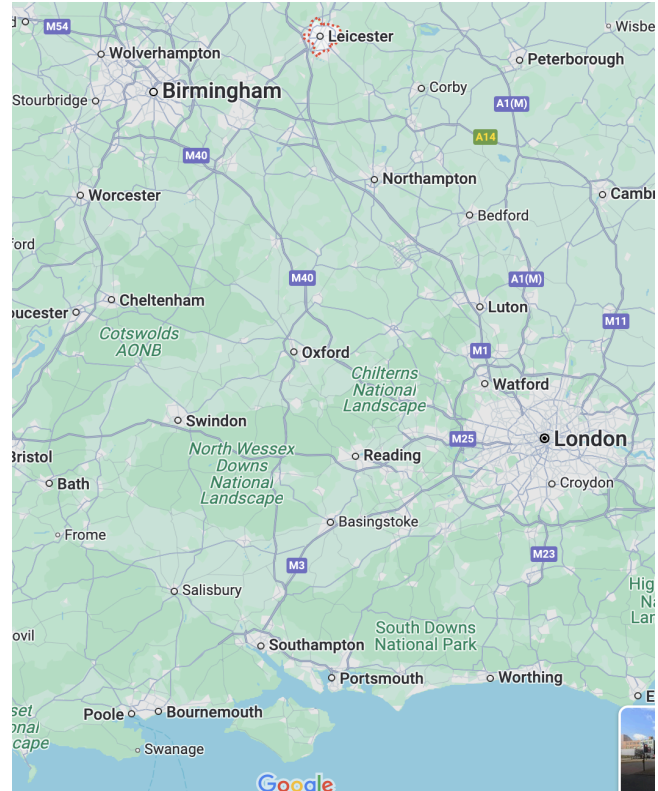
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A **settlement** is where people live. In the UK, 83% or 55 million people live in an urban area. The numbers living in towns and cities has increased over time.

### Why do some settlements grow into a city whilst others don't?

There are several reasons why Leicester has grown into a large and successful city:

- Originally, it grew as a settlement on the banks of the River Soar.
- Excellent transport link - in the past it was at a junction of important trading routes (road & canal) and today London is only 70 minutes away (by train).
- At the heart of an important farming region.
- It is an industrial city - in the past the wool trade brought workers to factories and today the city specialises in engineering and science.
- It is a good location for the development of a settlement due to its flat **relief**.



### What are the functions of a settlement?

The **functions** of a settlement are the things that happen there. A settlement may begin with one function but over time develop more functions or may change, for example, Padstow (Cornwall) was a fishing village and now attracts tourists. The functions of a settlement often explains why the settlement has grown.

| Function       | Definition   |
|----------------|--|
| Commercial     | Shopping facilities ranging from a small shop in a village to shopping malls in towns and cities, including facilities such as cinemas and sports centres. Most settlements have some form of commercial function.                           |
| Residential    | All settlements have a residential function. Some settlements are built purposely to provide homes for people, dormitory settlements are settlements close to larger settlements and where inhabitants commute into a city to work each day. |
| Administrative | The local government has central offices from which it runs public services such as waste proposals and library services.  |
| Industrial     | Companies that make (manufacture) something locate their factory in the settlement. Locate near larger settlements due to access to a workforce or near smaller settlements due to the land price being cheaper.                             |
| Tourism        | Large cities have the attraction of museums, art galleries and major sport facilities. Small villages in the beautiful countryside have the attraction of outside sports and the quiet rural life.   |
| Service        | As settlement size increases, range and number of services increases, e.g., doctors' surgeries, hospitals and schools. A hamlet will have none of these, whereas a major city will have many.  |

### What are the reasons for the site or situation of a settlement?

The **site** of a settlement is its exact physical location. The **situation** of a settlement is its setting in relation to surrounding features.

Most settlements grew up in ancient times, before motorways and tourism. **Early settlers** would have considered the following factors:



- **Water supply / wet point site** - settlers would choose areas near a river, spring or well as they needed water for cooking, cleaning and drinking. .
- **Defence** - settlers would choose hilltops, marshes and meander bends as these sites were easier to defend.
- **Bridging points** and **fords** - settlers were likely to cross a river at a shallow point and then build a bridge in this position. Once established, a bridge would act as a trading route for settlements situated either side of the river.
- **Transport** and **route centres** - settlers would choose a site near the fording or bridging point of a river, at a crossroads (originally tracks rather than roads) or near the coast as this made travel more easy. Certain locations have been natural route meeting points for thousands of years due to the physical landscape.
- **Farming / fertile soil** - settlers would choose areas with deeper more fertile soil as this is better for agriculture. Flat land either side of a

river (floodplain) would have been attractive to early settlers. However, being too close to the river would bring the danger of flooding, so settlements were often located high up the floodplain.

- **Relief** - settlers would choose an area that was high enough to be safe from flooding but low enough to be sheltered from winds. Flat land is easier to build on, grow crops and travel to other towns.
- **Building materials** and **fuels** e.g. wood - settlers would choose to settle near woodland as they used wood for building and fuel. Easily quarried stone was also a valuable resource for building.
- **Aspect / shelter** - a south facing slope will have more sun and protection from the wind (in the northern hemisphere). Settlements often found on the south-side of the valley e.g. Alpine villages. Trees can also provide protection.
- **Dry point site** - on higher, dry areas close to wet land e.g. marshes or flooding rivers.

### What is settlement hierarchy?

Settlements can be ranked in order - a **hierarchy**. The order within the hierarchy is decided by population, area, and range and number of services.

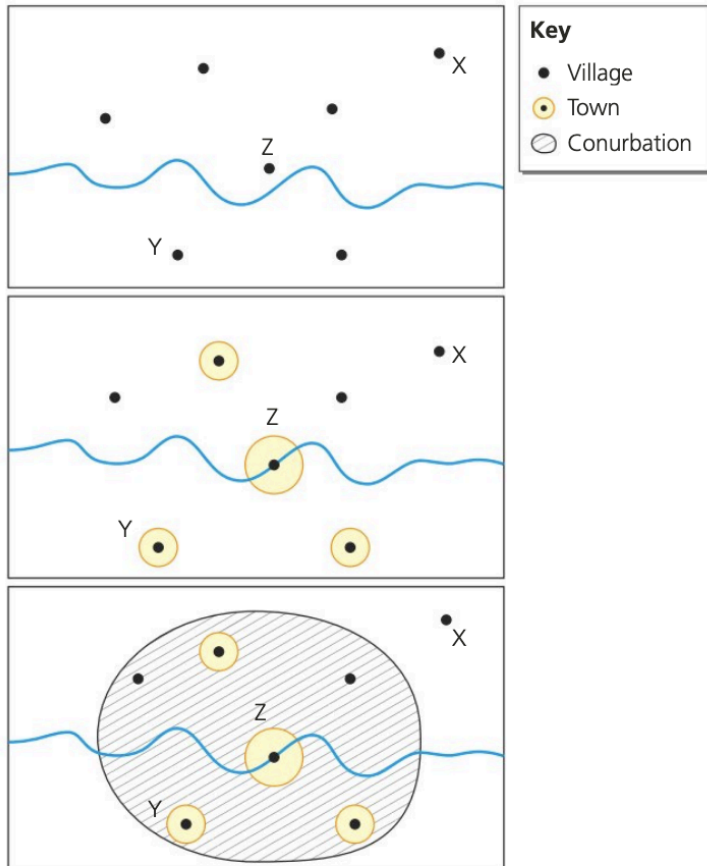
The larger the **settlements**, the more services it will have.

| Settlement      | Services  | Approximate population      |
|-----------------|---|-----------------------------|
| Hamlet          | Perhaps none  | Less than 100 people        |
| Village         | Church, public house, convenience shop, primary school  | 100 - 2,500 people          |
| Town            | Several shops, churches, secondary school, dentist, bank, small hospital                          | 2,500 - 100,000 people      |
| City            | Cathedral, large railway station, large shopping centre, large hospital, specialist shops, museum | More than 100,00 people     |
| <b>Magacity</b> | Cathedral, large railway station, large shopping centre, large hospital, specialist shops, museum | More than 10 million people |

The larger settlement has everything the smaller settlement has, for example a town has 'Church, public house, convenience shop, primary school (what a village has) as well as 'Several shops, churches, secondary school, dentist, bank, small hospital'.

A **hamlet** is a small, isolated group of homes-

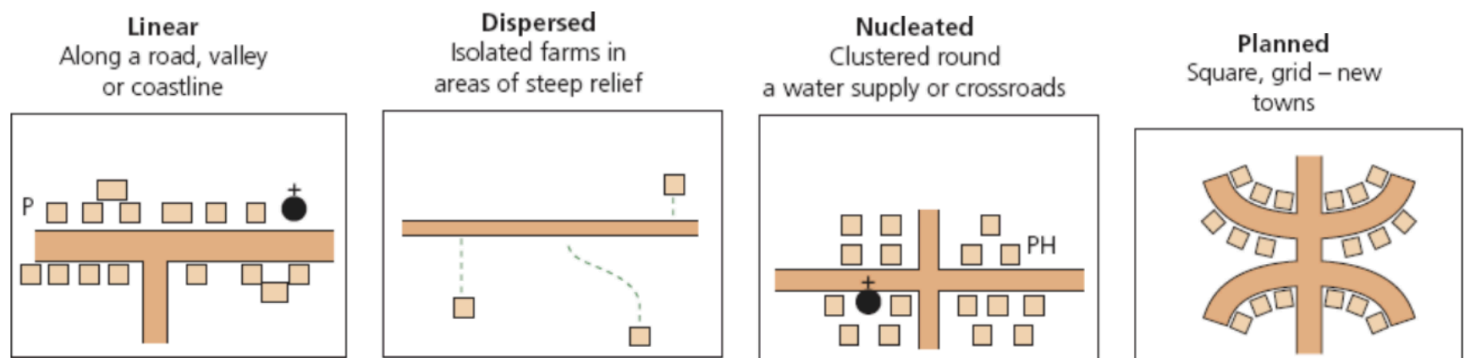
As settlements grow they may expand from villages into towns or from towns into cities. Eventually, they may form a large **conurbation**, a region where a number of settlements have merged together.



**E:** Development of a conurbation

### Do settlements have patterns?

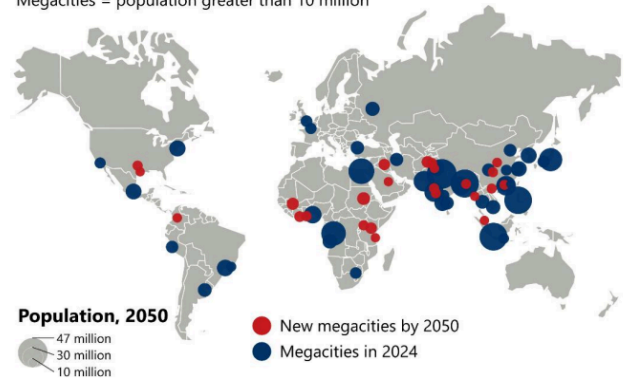
Settlements develop in a **pattern**. There are four main settlement patterns but many settlements contain a mixture of these shapes.



Linear settlements developed as houses were built along transport routes. As transport improved in Britain in the 1920s, people could live further from work and **urban sprawl** occurred, together with linear settlements along new transport routes. **Green belts** (where planning permission is limited) were introduced to control urban sprawl.

### Megacities in 2024 and 2050

Megacities = population greater than 10 million



Source: Oxford Economics Global Cities, November 2023

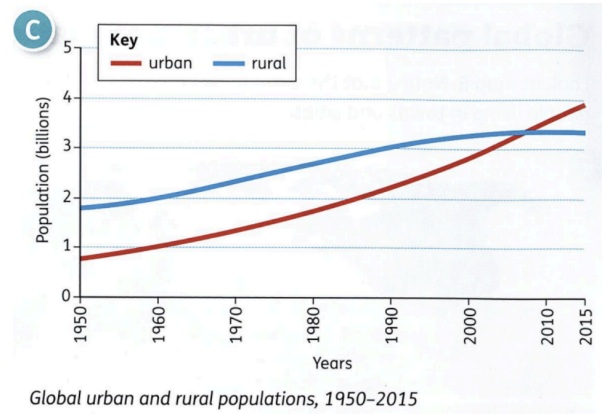


## Topic 2: What are the impacts of urbanisation?

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### What is urbanisation?

**Urbanisation** is the movement of people from the countryside (rural areas) to live in towns and cities (urban areas). Chart C shows that there has been a steady increase in the number of people living in urban areas. In 1950, 751 million people lived in urban areas whereas in 2015, this number had increased to 3.95 billion. It is predicted that by 2030, almost 60 per cent of the world's population will live in urban areas.



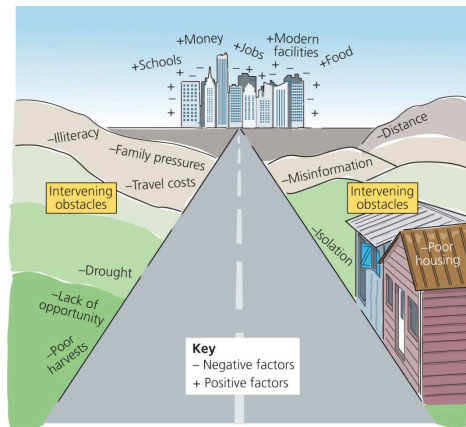
There are two main reasons for urbanisation:

#### Rural-urban migration

**Push factors** are the reasons why people leave an area - e.g. there are no jobs in rural areas.

**Pull factors** are the reasons why people move to a particular area - e.g. there are good job opportunities in urban areas.

Cities are magnets for people from rural areas.



#### Natural increase

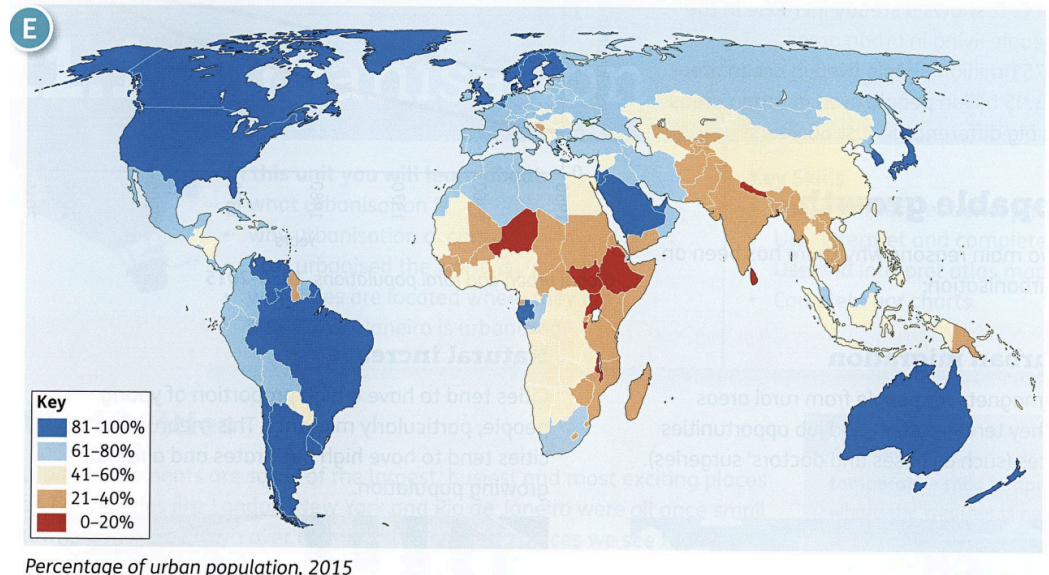
Cities tend to have a high proportion of young people, particularly migrants. This means that cities tend to have **high birth rates** and a rapidly growing population.



### Is there a pattern to the world's urban population?

Map E shows the percentage of urban population in 2015. There are huge **variations** in the percentage of people living in towns and cities.

- 43% of Africa's population live in towns and cities. African countries are Low Income Countries (LICs), so most people still live in rural areas and work in agriculture.
- Urban areas in many LICs are getting bigger very quickly.
- By 2015 India is expected to add 416 million people to its cities due to rural-urban migration and high rates of natural increase.
- Most High Income Countries (HICs) have already experienced rapid growth of towns and cities, mainly due to industrialisation and increased jobs.
- Rates of urbanisation in HICs are low because most people already live in towns and cities. Counter-urbanisation is occurring as people move from busy cities to less busy rural areas.

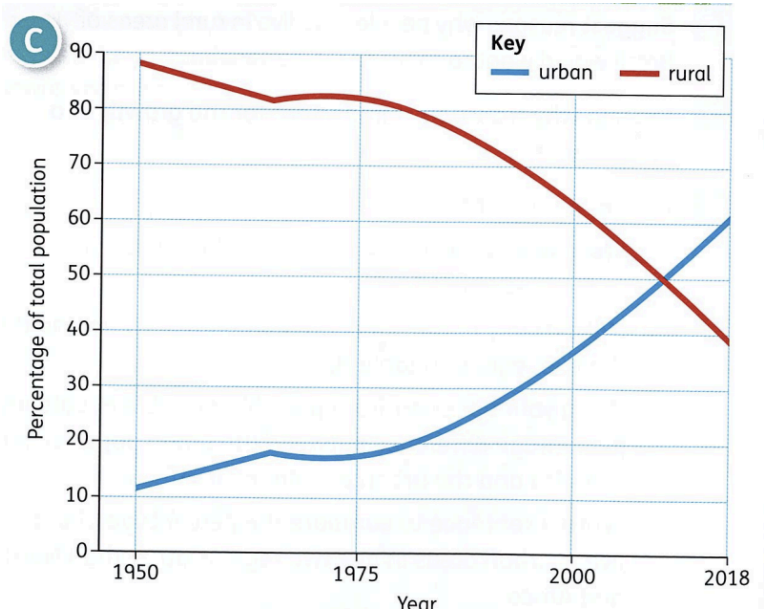
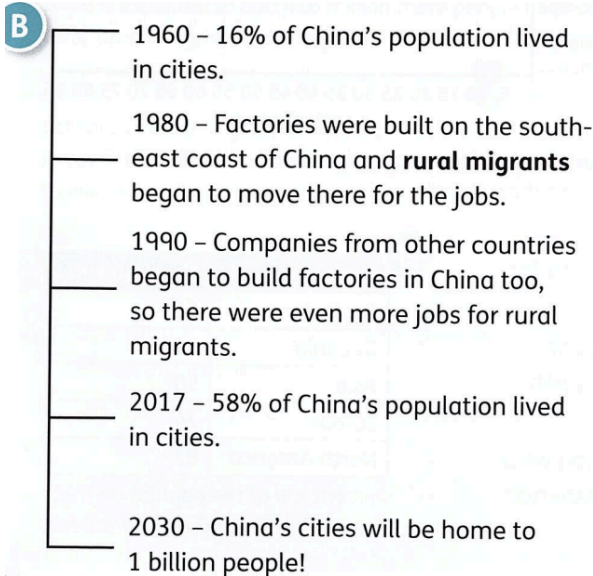


## Option A: Rural-urban migration in China

[Click here](#) to listen to a podcast about this topic.

### China's urban billion

Shanghai (photo **A**), in China, is home to 24.18 million people (the same as the population of Australia). China is an example of a country that has urbanised rapidly. Timeline **B** and graph **C** will help you see how quickly this has happened.



### Why do people move to China's cities?

Along with natural increase, rural-urban migration is one of the main causes of the growth of China's urban areas. The reasons they want to leave the rural areas are called **push factors** while the reasons they want to move to a city are called **pull factors**. Below are the push and pull factors for China.

| Push factors for leaving China's rural areas   | Pull factors for moving to China's cities   |
|--|---|
| <ul style="list-style-type: none"><li>• Lack of jobs other than farming</li><li>• Limited electricity</li><li>• Poorly built houses</li><li>• Poverty</li><li>• No government investment</li><li>• Limited leisure opportunities</li><li>• Fewer doctors and no hospitals</li><li>• Poor education facilities</li><li>• Starvation due to crop failure</li><li>• Unreliable water supply or dirty water</li><li>• Hard work on farms, with long hours and poor pay</li></ul> | <ul style="list-style-type: none"><li>• Many doctors and hospitals offering good healthcare</li><li>• Lots of government investment for improvements</li><li>• Lots of entertainment opportunities</li><li>• Plentiful food supply</li><li>• Reliable electricity supply</li><li>• Jobs are well paid and varied</li><li>• Good schools</li><li>• Modern, well built homes</li><li>• Many job opportunities</li><li>• Reliable clean water supply</li></ul> |

### What is life like in China's cities?

Around 30 years ago, China began to make a lot of goods in factories and many people moved to the cities for the factory jobs. People worked for low wages, so products could be made cheaper than in many countries. This attracted business from around the world to set up factories in China. There were so many jobs available that many people moved to the city from the countryside. However, some factories did not follow health and safety laws, and did not stick to fair working hours and working conditions.



### Meet Liang

**Age:** 29

**Lives in:** Shanghai, China

**Originally from:** A small village 70 km from Shanghai

**Job:** Building site managed

"I used to work on my family's farm in a small village. The work was hard and most of the time we couldn't grow enough food to feed ourselves. I walked an hour to school, and sometimes we didn't have enough books and pens. Our house was small, and sometimes the electricity did not work.

Five years ago I decided to move to Shanghai. I am glad I did. I got a job on a building site and now I am the manager. In the evening, I go to university to study construction. I miss my family, but I am able to send them money to help them out."

### Meet Su

**Age:** 21

**Lives in:** Beijing, China

**Originally from:** A small fishing village 100 km from Beijing

**Job:** Factory worker

"I moved to Beijing three years ago but, with no education, found it hard to get a job. I sold vegetables on the street for the first year. I lived on the street too. Last year I found a job in a factory. The pay is better, but I work 7 days a week, sometimes for 12 hours a day. Sometimes I can't afford to pay rent on my small flat.

I have a terrible cough from the pollution, but they don't offer rural migrants healthcare here."

### What happens to the rural areas in China?

When people leave the rural areas of China, the villages they leave behind can suffer.

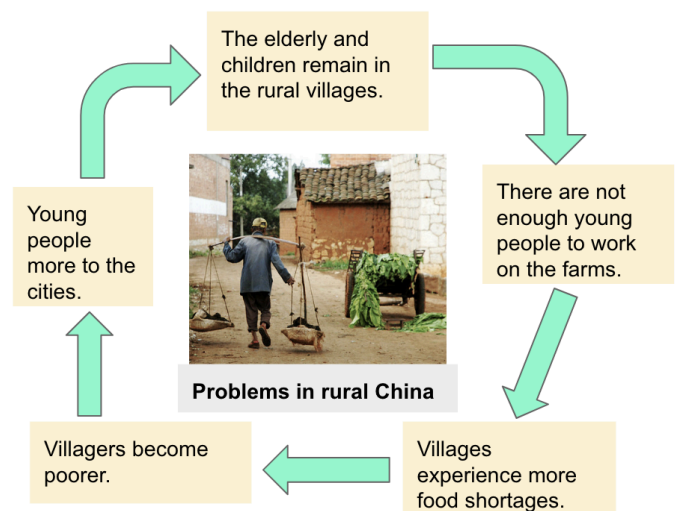
It is estimated that from 2010 to 2023 China's rural workforce will shrink by 45%. This is because many people of working ages will be living in cities. In the past, most of these people would be living in rural areas, working on farms and looking after their aging relatives. As a result of this shift:

- There will be fewer people to look after the elderly in rural areas
- China will struggle to grow enough food to feed its growing population
- The level of poverty in rural areas will increase.

### What can China do to make people stay in rural areas?

The Chinese government has tried to encourage people to stay in or move to rural areas. In 2018, they announced a three-year plan to improve the quality of life in rural areas by:

- Making farming easier
- Reducing the cost of setting up a business in a rural area
- Improving access to basic services, such as water, sanitation and energy
- Improving roads, healthcare and education.



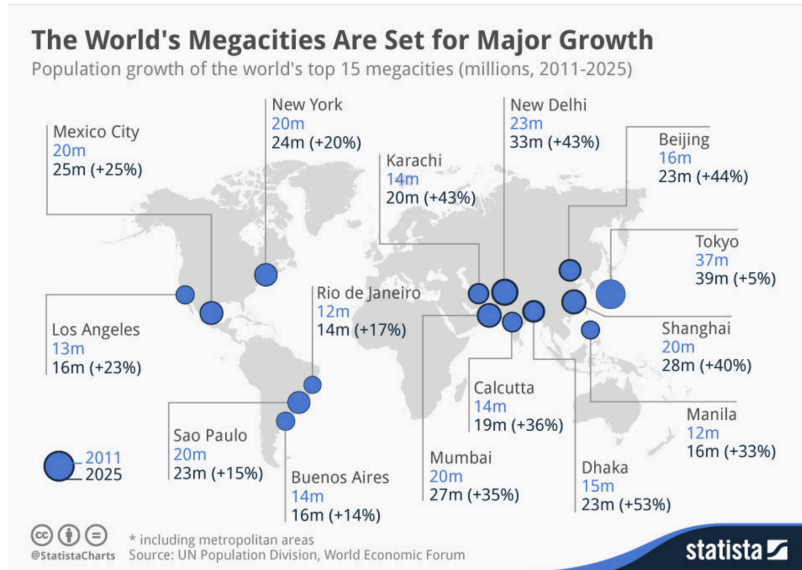
## Option B: Megacities

[Click here](#) to listen to a podcast about this topic.

Imagine living in a city with 37 million neighbours. If you lived in the city of Tokyo in Japan, that's how many people you would share your city with. That makes London's population of 8 million people feel small.

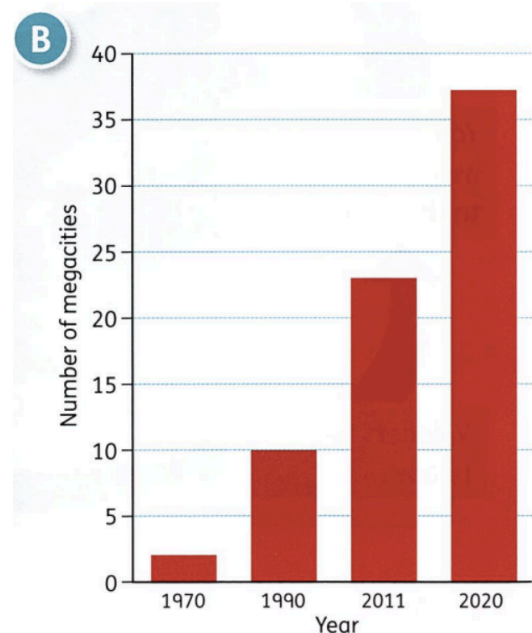
### The megacity explosion

Some cities around the world have grown so big that they are called **megacities**. A megacity is a city with a population of over 10 million people. Tokyo is the world's largest megacity. In 1950, New York and Tokyo were the only two megacities but today it is estimated that there are now 35.



| Position | City        | Country    | Population |
|----------|-------------|------------|------------|
| 1        | Tokyo       | Japan      | 37 million |
| 2        | Delhi       | India      | 29 million |
| 3        | Shanghai    | China      | 26 million |
| 4        | Sao Paulo   | Brazil     | 22 million |
| 5        | Mexico City | Mexico     | 22 million |
| 6        | Cairo       | Egypt      | 20 million |
| 7        | Mumbai      | India      | 20 million |
| 8        | Beijing     | China      | 20 million |
| 9        | Dhaka       | Bangladesh | 20 million |
| 10       | Osaka       | Japan      | 19 million |

**The ten largest megacities, 2018**

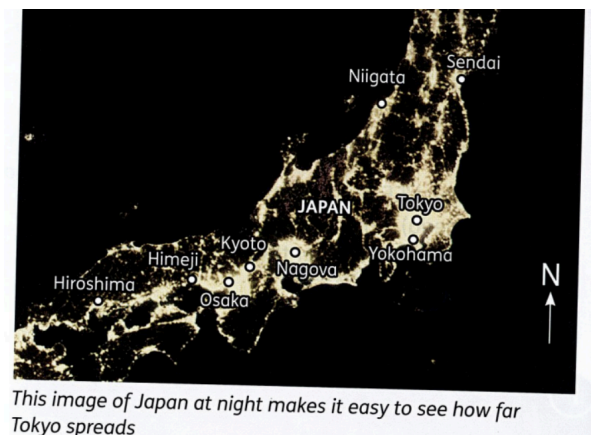


The number of megacities has rapidly increased since 1970

### Why is there unstoppable growth?

Some megacities are growing so fast that no one really knows exactly how many people live in them. In your lifetime, some megacities will grow and have a bigger population than the whole of the UK. But what makes them grow so quickly?

- **Rapid rural-urban migration** - in some countries, the sheer scale of rural-urban migration has caused the massive growth of cities such as Shanghai in China and Jakarta in Indonesia.
- **High natural increase** - rates of natural increase are extremely high in megacities, such as Jakarta in Indonesia and Manila in the Philippines. With large numbers of mostly young people migrating into these huge cities, rates of natural increase are likely to rise further.





Whilst high rates of rural-urban migration and nature increase account for the growth of megacities on Low Income Countries (LICs) and Newly Emerging Economies (NEEs), the reason for high populations in New York and Tokyo (both High Income Countries (HICs)) are different.

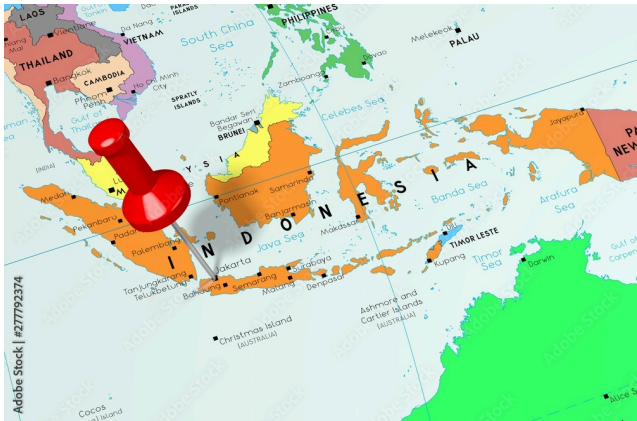
| New York  | Tokyo   |
|---|---|
| <ul style="list-style-type: none"> <li>In the mid 1800s New York was the main destination for migrants moving from Europe to the USA in search of jobs and opportunities to start a new life.</li> <li>Located near the coast and with plenty of relatively flat land, New York is an ideal place for the development of a large city.</li> </ul> | <ul style="list-style-type: none"> <li>Much of Japan is very mountainous and so difficult to live on. So the limited areas of relatively flat land close to the coast are ideal for the growth of large cities such as Tokyo.</li> <li>In the past, Tokyo grew rapidly as a national and regional centre for trade and business, attracting huge numbers of people from Japan and elsewhere. Today, Tokyo is the economic capital of Asia.</li> </ul> |

**Case Study - Jakarta**

Jakarta is the capital of Indonesia and the third largest megacity in the world. 31 million people call it home, but it could be underwater by 2050. Indonesia is an NEE. Megacities in NICs, such as Lagos (Nigeria), and those in NEEs, such as Jakarta, are growing quicker than any other megacity.

| Year                             | 1980 | 1990 | 2000 | 2010 | 2015 |
|----------------------------------|------|------|------|------|------|
| Population of Jakarta (millions) | 5.9  | 8.1  | 8.4  | 9.6  | 10.1 |

Population growth in Jakarta, 1980 - 2015



**What is it like living in Jakarta?**

Like many megacities, there are opportunities and challenges of living in Jakarta.



Photographs of Jakarta’s historic centre and its skyline at night.

| Opportunities in Jakarta  | Challenges in Jakarta  |
|---|--|
| <ul style="list-style-type: none"> <li>Together, the people in the city make over US\$321 billion a year.</li> <li>It is the headquarters for major Asian banks.</li> <li>Lots of tourists visit its theme parks at the coast.</li> <li>People move there from Indonesia’s other islands, so it is very diverse.</li> <li>There are 142 museums and many cultural festivals.</li> <li>It has excellent healthcare.</li> </ul> | <ul style="list-style-type: none"> <li>Not all homes have a clean water supply.</li> <li>There is not much open green space.</li> <li>There are traffic jams for most of the day.</li> <li>Its rivers and canals are polluted with waste.</li> <li>Many people have poorly paid jobs or, without jobs, beg on the street.</li> <li>Some people live in kampungs, which are areas of temporary shacks.</li> </ul> |

## Why is Jakarta sinking?

Jakarta is the fastest sinking city in the world. Parts of it are sinking by up to 25 cm per year. The city is sinking because of **subsidence**. Subsidence means the sinking of land and in Jakarta it is mainly occurring because much water is taken out of the groundwater supplies.

Over 75% of Jakarta's inhabitants have drilled illegal wells to get water because the city's piped water is not efficient enough. As the water is taken out of the ground, the land subsides. Mines in Jakarta suggest that the weight of the skyscrapers built to house Jakarta's millions of residents is also adding to the subsidence. As a result, dangerous cracks appear in buildings when the ground moves and some buildings have been abandoned.



Half of the city is below sea level. During the rainy season, floods are very common and devastating for residents. In recent years, land around the edges of Jakarta have also been built on, removing natural wetlands and forest that usually soak up rainwater. This makes flooding more likely and much worse. Global rise in sea levels also contributes to this threat.



*A sea wall and abandoned mouse along the coast of North Jakarta.*



## Option C: Housing the poor - Dharavi

[Click here](#) to listen to a podcast about this topic.

### What is a squatter settlement?

A **squatter settlement** is an area of poor-quality housing with no or limited services such as water supply, sewerage and electricity. They are found in Low Income Countries (LICs) and Newly Emerging Economies (NEEs).

The people who live in squatter settlements don't own the land, they are there illegally. They live there because they are poor and can't afford to live anywhere else. Their houses are built from any materials they can find, such as pallets, and are built on land that no one else wants, and may be dangerous or unpleasant. There are no sewers, few toilets, a very limited water supply as well as limited electricity. Many people work in the **informal sector** which is a sector comprising unofficial jobs where no records are kept and people do not pay tax to the government, e.g. street sellers.

### **Case study: Dharavi**

**Dharavi**, in Mumbai, is the biggest squatter settlement in India. It is densely populated as one million people live in just one square mile - that is the same as the whole population of Birmingham. Dharavi has grown as in India there is lots of rural-urban migration as people move from rural areas to cities like Mumbai in search of well-paid jobs and a better life. But the new arrivals are poor. They cannot afford housing in the city and, even if they could, there is not enough housing for everyone.

The new arrivals are forced to live in squatter settlements like Dharavi. There they can build a home illegally with the waste metal, wood and cardboard they find. Some people struggle to get jobs in the city and have to stay in Dharavi for a long time.

### What is life like in Dharavi?

Prisha is 12 years old and has lived in Dharavi all her life. Below is an extract of her diary which shows what her life is like.

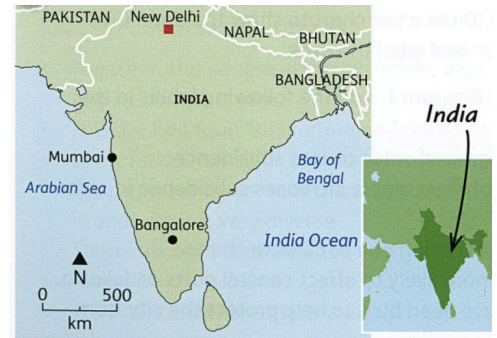
**5.30 am** My mother shakes me awake and I am careful not to wake Shriya as I climb out of the bed we share. We only have two rooms. I am lucky to sleep upstairs so I don't hear the rats at night! I join the ten other families collecting water from the pipe outside our house. It only comes on for two hours a day so we have to be quick. I collect enough water to last us until the next morning.

**9 am** It's school time. On the way, we stop by the toilet - an open hole near the river. There was a bit of a queue as 500 people share one toilet - I was nearly late for school! My father sets off for work in a bakery. There are over 300 one-room bakeries in Dharavi. They sell their food to the rest of the city - but they don't label it, so no one knows it's made here!

**3 pm** When I get back from school, it's time to help my mother with the laundry. We have a good chat with our friends as we wash our clothes in the river and lay them out to dry on the train tracks.

**5 pm** We walk back through the shopping street. There are hundreds of little shops here - people just set them up and you can get anything you need! We buy some medicine for Shriya. She's got a nasty cough and I hope she will be ok! Doctors deal with 4,000 cases of illness a day.

**9 pm** It's time for bed. This evening we got together with our neighbours. We shared food, and sang and danced. It was wonderful!



Mumbai is the biggest megacity in India



Rag picking – making money from other people's rubbish – is an important part of Dharavi's informal sector



## What are the options for squatter settlements?

People have different ideas about what should be done about Dharavi - slum clearance or self-help?



### The Dharavi Redevelopment Project

Some people believe that Dharavi should be bulldozed down and the people rehoused in tower blocks.

The government has been attempting to redevelop Dharavi since 2011, but each time the proposals have fallen through. The current plan is to provide people who have lived in Dharavi since 2000 with free housing. The housing will be in tower blocks with clean running water and toilets.

Some of the residents are not happy with these plans. They worry that the community's social areas, small businesses, outdoor spaces and community spirit will be destroyed.



### Self-help

Other people think the government should help residents to improve Dharavi themselves by giving them building materials.

Then they can repair and improve their homes, and set up a good sewerage system and water supply.



### Topic 3: What is happening at the rural-urban fringe?

[Click here](#) to listen to a podcast about this topic.

#### What are the advantages and disadvantages of brownfield and greenfield sites?

**Greenfield sites** are undeveloped land in a city or rural area where it is usually used for agriculture or left to evolve naturally. **Brownfield sites** are land within the built-up area that has been abandoned and is now not being used.

The question of where to build (on greenfield or brownfield sites) arises in connection with a range of urban land uses - housing, retailing, industries and offices. With all land uses, there are arguments for and against each type of site.

| Site              | Advantages   | Disadvantages  |
|-------------------|--|--|
| <b>Brownfield</b> | <ul style="list-style-type: none"><li>• Reduces the loss of countryside and land that might be put to agricultural or recreational use.</li><li>• Helps to revive old and disused urban areas.</li><li>• Services already in place.</li><li>• Located near to main areas of employment.</li></ul>                  | <ul style="list-style-type: none"><li>• Often more expensive because old buildings have to be cleared and land made free of pollution.</li><li>• Often surrounded by rundown areas so does not appeal to more wealthy people as residential locations.</li><li>• Higher levels of pollution; less healthy.</li><li>• May not have good access by road.</li></ul> |
| <b>Greenfield</b> | <ul style="list-style-type: none"><li>• Relatively cheap and rates of house building are faster.</li><li>• The layout is not hampered by previous development so can easily be made efficient and pleasant.</li><li>• Healthier environment.</li><li>• Proximity of countryside, leisure and recreation.</li></ul> | <ul style="list-style-type: none"><li>• Valuable farmland, recreational space and attractive scenery lost.</li><li>• Development causes noise and light pollution in the surrounding countryside.</li><li>• Wildlife and their habitat lost.</li><li>• Encourages further <b>suburban sprawl</b>.</li></ul>  |

#### What is happening at the rural-urban fringe?

The **rural-urban fringe** or urban fringe is the area where the countryside (**rural**) meets the built up (**urban**) parts of the towns and cities. Here the countryside is being lost by the outward growth of towns and cities, particularly their suburbs. Greenfield sites are in great demand to be used for housing, industry, shopping, recreation and the needs of the public utilities, such as reservoirs and sewerage works.

There are a number of reasons for urban growth to take place at the rural-urban fringe. These reasons can be explained as push and pull factors. The table below outlines some of these factors:

| Push Factors  | Pull Factors  |
|---|---|
| Housing is old, congested and relatively expensive.   | Land is cheaper so houses are larger.   |
| There are various forms of environmental pollution - air quality is poor, and noise levels are high.                          | Factories can be more spacious and have plenty of room for workers to park their cars.          |
| Companies find that there is a shortage of land for building new shops, offices and factories. So, any unused land is costly. | Closeness to main roads and motorways allows for quick and easier customer contacts.            |
|   | New developments on the outskirts are favoured by the personal mobility allowed by car drivers. |



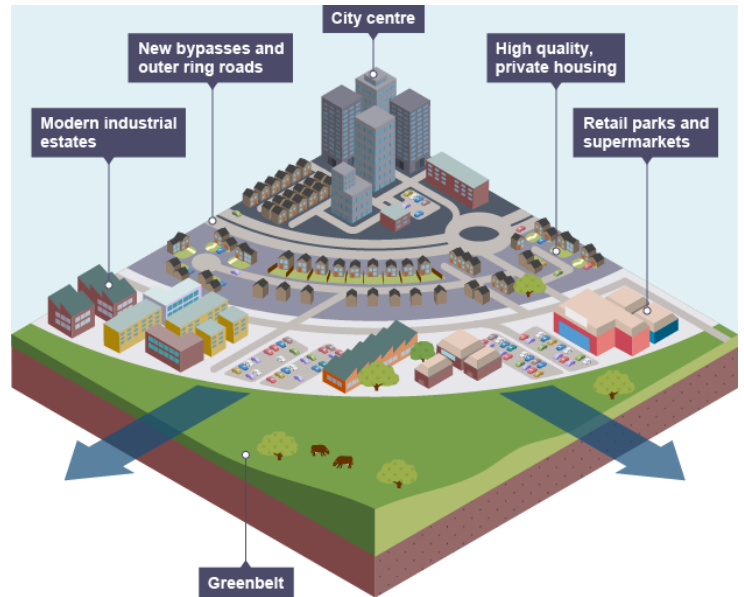
## How do urban areas develop?

The **Central Business District (CBD)** is the commercial and business centre where land values are highest. Many of the oldest and tallest buildings here and people travel from all parts of the city to the CBD for work or shopping.

A **bypass** is a road built around a town.

A **retail park** is a shopping development situated outside a town or city, typically containing a number of large chain stores.

The **greenbelt** is a natural, undeveloped land that surrounds urban areas. Its aim is to restrict **urban sprawl**.



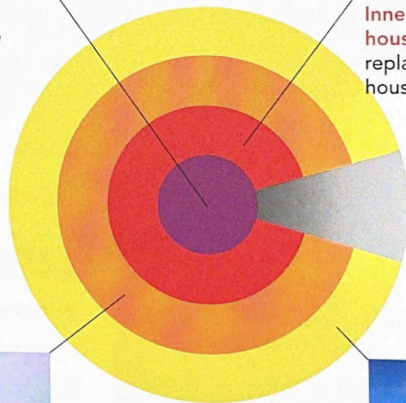
As you move outwards from the CBD, land gets **cheaper** and there are more houses. Newer houses are usually at the edge. People can now live further away from their place of work or the shops as cars allow people to travel greater distances more easily. Online shopping and working from home has also impacted where people live.



**CBD** – large shops, restaurants, entertainment and high-rise office blocks



**Inner city** – originally, rows of **terraced houses** for factory workers, now replaced by high-rise flats and new housing estates



| Key   |              |
|---|--------------|
| <span style="display:inline-block; width:10px; height:10px; background-color:purple; border:1px solid black;"></span> | CBD          |
| <span style="display:inline-block; width:10px; height:10px; background-color:red; border:1px solid black;"></span>    | Inner city   |
| <span style="display:inline-block; width:10px; height:10px; background-color:orange; border:1px solid black;"></span> | Inner suburb |
| <span style="display:inline-block; width:10px; height:10px; background-color:yellow; border:1px solid black;"></span> | Outer suburb |
| <span style="display:inline-block; width:10px; height:10px; background-color:grey; border:1px solid black;"></span>   | Industry     |



**Inner suburbs** – streets of **semi-detached houses** with gardens for people who commute to work in the city centre



**Outer suburbs** – larger **detached houses** with spacious gardens, further from the city centre and industry

Traditionally factories were built along the routes of old canals and railways. **Transport** links are still an important location factor for industry and therefore industry has moved to new sites at the edge of the city, close to motorways.

Areas of urban areas are also **redeveloped**. Old areas (inner city) have been redeveloped and old factories have been demolished or converted into other land uses (**urban renewal**).

**A** A typical city in the UK



## Case Study: New Housing and Redevelopment at Bristol

[Click here](#) to listen to a podcast about this topic.

### What is Bristol like?

Bristol is the largest city in south-west England and it is important regionally and nationally. Below is a table outlining some reasons why it is important:

| Transport   | Industry   |  |
|---|--|--|
| <ul style="list-style-type: none"><li>• Good road and rail links</li><li>• Ferry services to Europe</li><li>• Two major docks</li><li>• Bristol airport links to Europe and the USA</li></ul>                         | <ul style="list-style-type: none"><li>• Global industries like aerospace and media</li><li>• Inward investment from abroad</li><li>• Largest concentration of silicon chip manufacturers outside California (high tech business attracted)</li><li>• Shops and leisure facilities at Cribbs Causeway (retail park) and Cabot Circus shopping centre (city centre location)</li></ul> |  |
| Culture and Entertainment   | Tourism  | Education  |
| <ul style="list-style-type: none"><li>• Home to the creators of Wallace and Gromit</li><li>• Bristol has museums, art galleries, nightclubs, bars and a vibrant music scene as well as theaters and cinemas</li></ul> | <ul style="list-style-type: none"><li>• UK's eighth most popular city for foreign visitors</li></ul>   | <ul style="list-style-type: none"><li>• Two large universities</li><li>• Attracts international students</li></ul> |

Bristol's population is increasing and over 2 million people live within 50 km of the city. About half of Bristol's population growth comes from migration, including large numbers from European Union (EU) countries. Migration has brought both opportunities and challenges.

| Opportunities   | Challenges  |
|---|---|
| <ul style="list-style-type: none"><li>• A hard-working workforce</li><li>• Enriching the city's cultural life</li><li>• Mainly young migrants help to balance the ageing population</li><li>• City is becoming more ethnically diverse</li><li>• Migrants contribute to music, art, literature and food</li></ul> | <ul style="list-style-type: none"><li>• Housing provision has not kept pace with population growth - so Bristol is very expensive for housing rental or purchase</li><li>• Teaching children whose first language is not English</li><li>• Integration into the wider community</li></ul> |

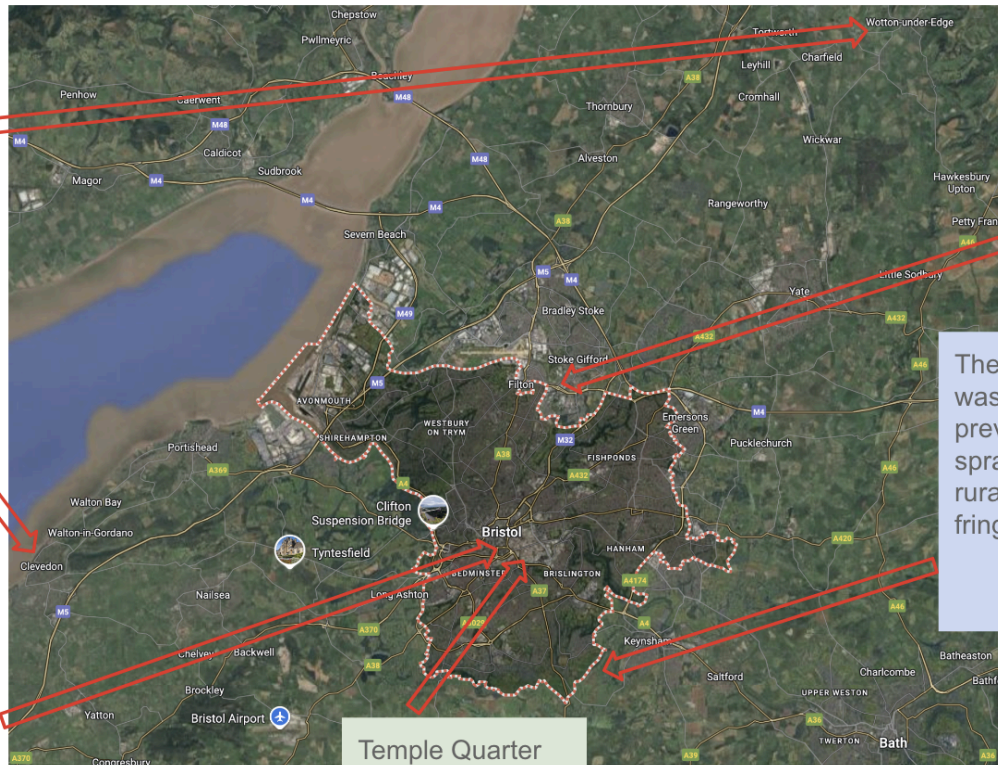
Urban change within Bristol has created both opportunities and challenges.

| Opportunities  | Challenges  |
|--|---|
| <ul style="list-style-type: none"><li>• Social and cultural opportunities</li><li>• Improved sporting and shopping facilities</li><li>• High tech businesses attracted to Bristol</li><li>• 2015 Bristol became the first UK city to be awarded the status of European Green Capital<ul style="list-style-type: none"><li>◦ Integrated transport system (ITS)</li><li>◦ Urban greening (1/3 of Bristol is open space, 8 nature reserves and 300 parks)</li></ul></li><li>• Waste produce per head is 23% lower than the UK average</li></ul> | <ul style="list-style-type: none"><li>• Housing shortage</li><li>• Demand for housing contributed to Urban sprawl</li><li>• Development on greenfield sites</li><li>• Derelict industrial buildings</li><li>• Inner-city housing derelict - therefore problems with squatters and antisocial behaviour</li><li>• One of the worst cities in the UK in terms of food waste</li><li>• Vehicle emissions (200 people die prematurely)</li><li>• Inequalities between some areas which have high levels of social deprivation</li></ul> |

## What is being done to improve Bristol?

Nearby towns, such as Clevedon and Wotton-under-Edge, have become commuter settlements

Bristol Harbourside development



Harry Stoke development

The green belt was set up to prevent urban sprawl on the rural-urban fringe.

Temple Quarter

### **Waste Disposal**

Bristol is working hard to reduce its environmental impact of waste disposal

- Income is generated when recycled materials are sent to reprocessing plants.
- The Avonmouth waste treatment plant treats 200,000 tonnes of waste per year.
- Any no-recyclable waste is used to generate electricity (currently for 25,000 homes in the Bristol area).

### **Atmospheric pollution**

Actions to improve the air quality include:

- The Frome Gateway, a walking and cycling route to the city centre.
- An electric vehicle programme
- A smartphone app with information about public transport services, connections and delays.
- Clean Air Zone established (need to pay to enter zone if vehicle doesn't meet the zone's emission standards).

### **Housing shortage and urban sprawl**

- Bristol is developing brownfield sites.
- Between 2006 and 2013, only 6% of new housing developments were on greenfield sites (94% of new housing was built on brownfield sites).

Housing development examples:

#### **Harry Stoke (developing greenfield land)**

- A new development of 3,200 homes was built.
- Local people objected:
  - Traffic congestion, noise and poor air quality
  - Loss of animal habitats
  - The effect on the local flood risk

#### **Bristol Harbourside (developing brownfield land)**

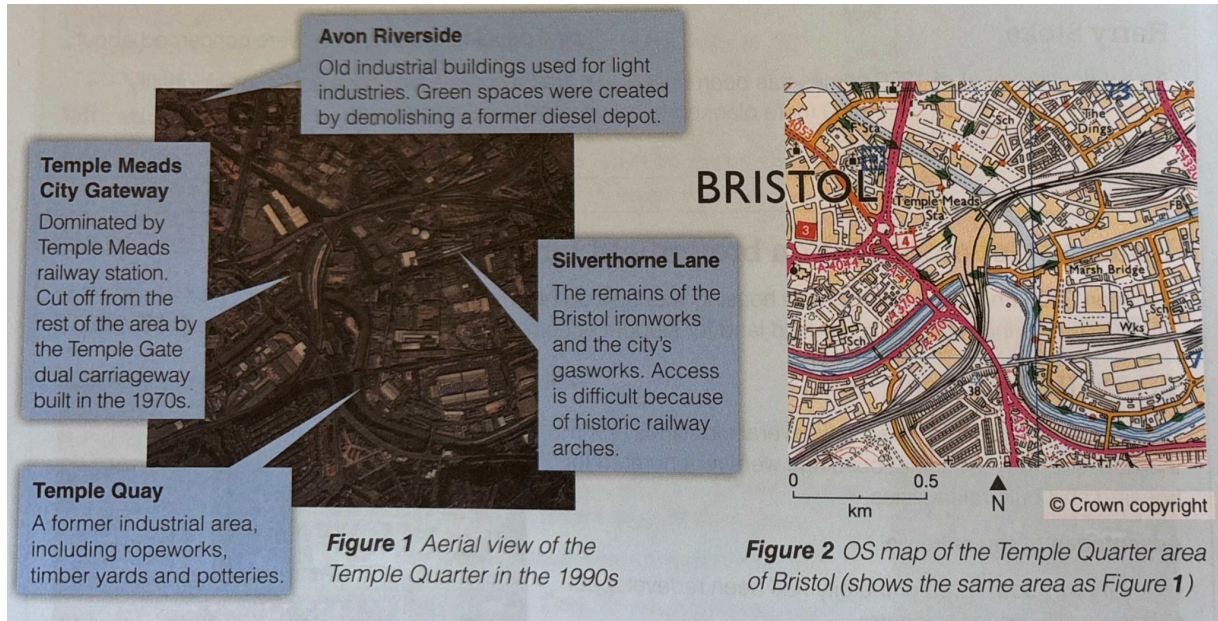
- When Bristol's port close to the Central Business District (CBD) closed, so did several industries around the docks leaving empty industrial buildings.
- These buildings were regenerated for housing and cultural facilities.
- + Run-down area of the city redeveloped
- + People still live in the centre
- Not everyone likes the architecture
- Costly renovation, therefore flats are expensive



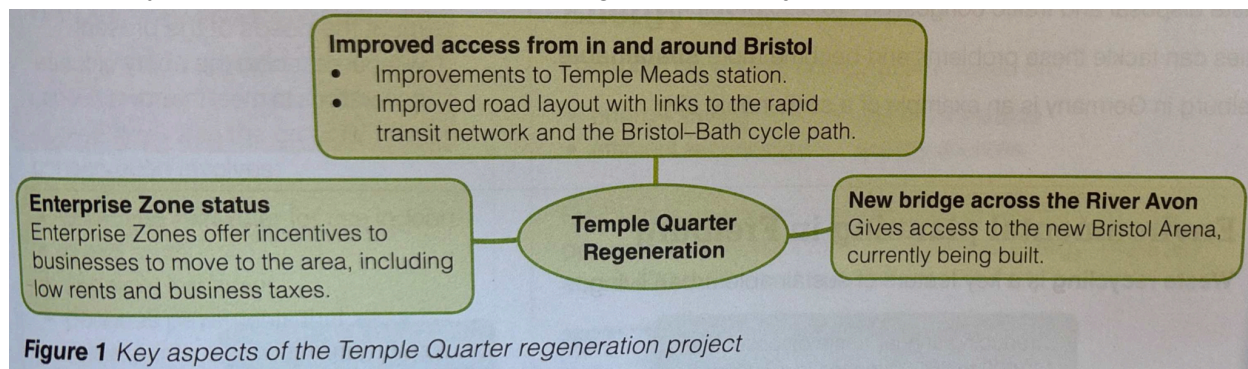
## Why did the Temple Quarter need regeneration?

The Temple Quarter is an example of an **urban regeneration** project. The area was a former industrial area and was very run down. It gave a bad impression to visitors driving in from the south or south-east, or arriving at Temple Meads railway station.

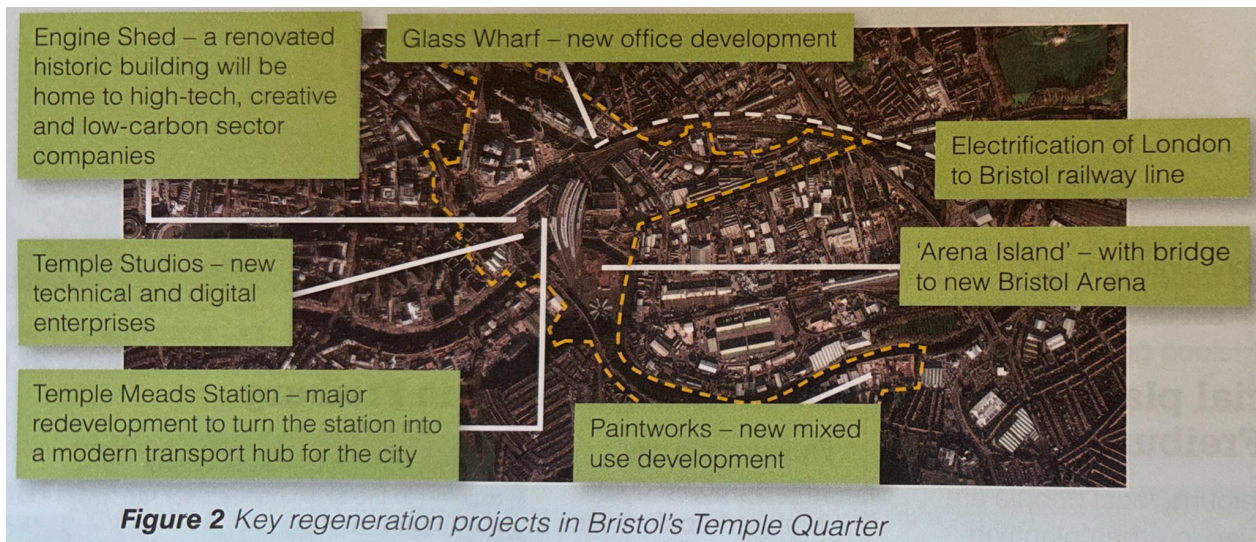
There are four separate areas within the Temple Quarter.



There were three key aspects of the Temple Quarter regeneration project.



The target for the regeneration was to create 17,000 new jobs by 2037, focussing on several key projects.





## Key Vocabulary

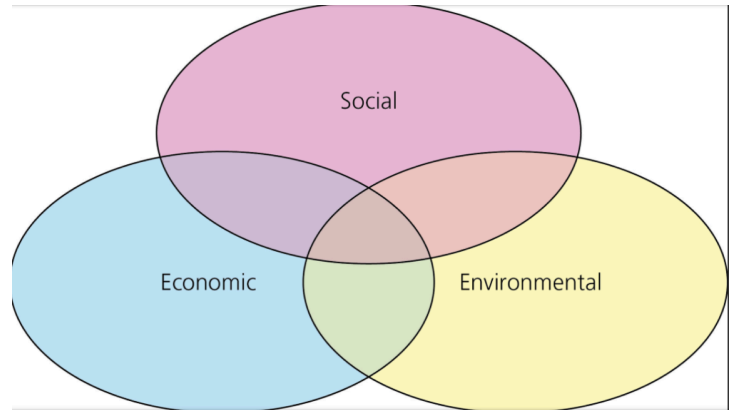
- **Atmospheric Pollution:** The contamination of the Earth's atmosphere by harmful substances, leading to issues like poor air quality and health problems.
- **Brownfield Sites:** Land that has been previously developed, often for industrial or commercial purposes, and is now available for redevelopment.
- **Central Business District (CBD):** The commercial and often geographic heart of a city, typically characterized by high-density development, shops, and offices.
- **Clean Air Zone:** An area, often in a city, where measures are implemented to reduce air pollution, such as charging vehicles that do not meet certain emission standards.
- **Commuter Settlements:** Towns or communities where a significant portion of the population travels daily to a larger city for work or education.
- **Enterprise Zone:** Designated areas within the UK that offer tax breaks and other incentives to businesses, encouraging investment and job creation.
- **European Green Capital:** An annual award given to a European city that demonstrates a strong commitment to environmental sustainability and green urban living.
- **Green Belt:** A policy designation used in land-use planning to control urban sprawl by restricting building development on land surrounding existing urban areas.
- **Greenfield Sites:** Undeveloped land, typically agricultural or forested areas, that are considered for urban expansion or new construction.
- **High-Tech Business:** Industries involved in advanced technologies, such as IT, electronics, and biotechnology, often requiring a skilled workforce and research facilities.
- **Integrated Transport System (ITS):** A coordinated network of various transport modes (e.g., buses, trains, cycling routes) designed to work together efficiently to improve urban mobility.
- **Migration:** The movement of people from one place to another, often across national borders, contributing to population changes and cultural diversity.
- **Regeneration:** The process of revitalizing and improving a rundown or neglected area, often involving economic, social, and environmental initiatives.
- **Retail Park:** An out-of-town shopping area consisting of several large stores, usually with ample parking.
- **Social Deprivation:** The lack of resources or opportunities experienced by individuals or communities, often linked to factors like low income, poor housing, and limited access to services.
- **Squatters:** Individuals who occupy land or buildings without legal right or permission.
- **Urban Greening:** The process of increasing and preserving green spaces within an urban environment, such as parks, nature reserves, and street trees, to improve quality of life and biodiversity.
- **Urban Sprawl:** The uncontrolled expansion of urban areas into surrounding rural lands, often characterized by low-density development and increased car dependency.

## Topic 4: How is urban development managed?

[Click here](#) to listen to a podcast about this topic.

**Sustainability** is all about protecting our planet and making sure we don't ruin it for future generations. If something is sustainable, it is long-lasting. We can think about three different ways to be sustainable:

- **Economic** sustainability involves making sure the city makes money and that its inhabitants make enough money to satisfy their needs.
- **Environmental** sustainability involves protecting and improving the environment.
- **Social** sustainability involves making sure people are happy and supported with good services, such as healthcare and education.



For a city to be sustainable it needs to be sustainable in all three areas.

### What are the concerns for the future?

In the future more and more people are going to live in cities. **Governments** and **city planners** are **worried**. Below are questions that they are worried about.

- Where is everyone going to live?
- Where do we get enough water and food for everyone?

- What will happen to the air quality if everyone uses cars?
- How can we provide enough energy?
- Can the sewerage and waste disposal cope with so many people?

The answer to all these problems is for cities to become sustainable.

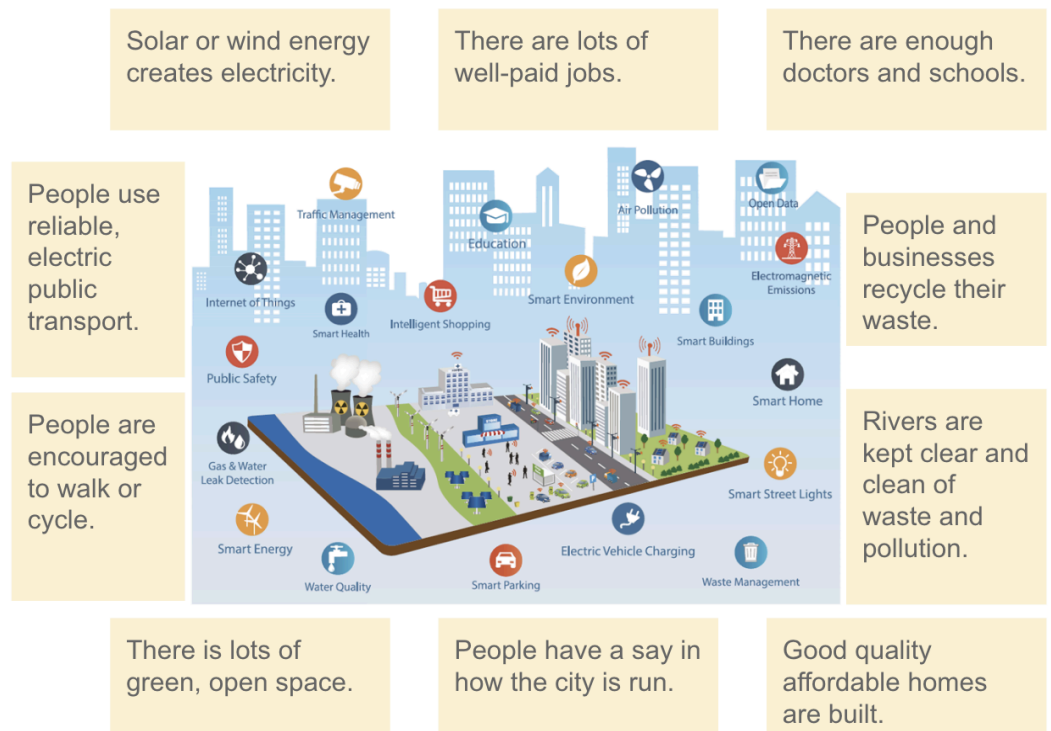
### What does a sustainable city look like?

A city that is thinking about the future will try to have as many of these features (shown left) as possible as it will help the city achieve sustainability.

### Which cities are the most sustainable?

The Sustainable Cities Index ranks 100 cities around the world in three areas of sustainability:

- **People** (social sustainability) - health, crime and housing
- **Planet** (environmental sustainability) - energy use, recycling and green space
- **Profit** (economic sustainability) - the city's income.



The worst performing city for each factor scores 0 per cent and the best 100 per cent. The score for each city is then averaged to give a single percentage.

In 2018:

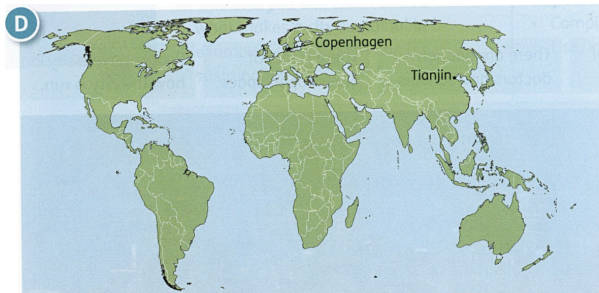
- No city was sustainable in all three areas
- High Income Countries (HICs) overall ranked higher than Newly Emerging Economies (NEEs) and Low Income Countries (LICs)
- African cities tend to be at the end of the rankings as they score poorly on economic sustainability.

### **Case studies: Sustainable living around the world**

Copenhagen (Denmark) and Tianjin eco-city (China) are two cities trying to make city living sustainable.

| Rank | City      | Country     |
|------|-----------|-------------|
| 1    | London    | UK          |
| 2    | Stockholm | Sweden      |
| 3    | Edinburgh | UK          |
| 4    | Singapore | Singapore   |
| 5    | Vienna    | Austria     |
| 6    | Zurich    | Switzerland |
| 7    | Munich    | Germany     |
| 8    | Oslo      | Norway      |
| 9    | Hong Kong | China       |
| 10   | Frankfurt | Germany     |

**Top 10 most sustainable cities**



Locations of two cities trying to make city living sustainable



Location of Tianjin eco-city

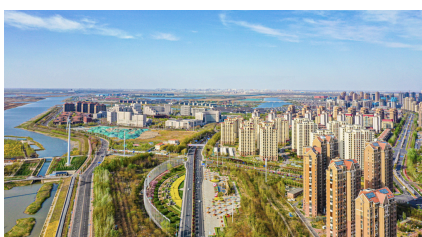
#### **Tianjin eco-city - a new city**

The city of Tianjin in north-west China is the fourth largest in the country and home to around 10 million people. The large population brings about many problems, such as air pollution. People are also being forced to live in dangerous areas of the city, including next to chemical factories.

The Singapore and Chinese governments are building a brand-new 'eco-city' 40km from the existing city centre. They are promising it will be an environmentally friendly and resource-conserving city.

Some of its sustainable features include lots of green space throughout the city, trams and buses as the main means of transport, and social facilities close to people's homes. The city will also be home to around 4,500 companies. 50% of the water it uses will be recycled.

Work began in 2008 and the planned completion date is the mid-to late-2020s.



#### **Cycling in Copenhagen, Denmark**

Copenhagen is the capital of Denmark. The city has a population of 600,000. It is attempting to become more sustainable by thinking about how people move around the city. People who commute to the city centre in cars cause traffic problems and air pollution. The more populated a city is, the more this will impact the environment and people's health. One solution is to encourage people to cycle.

- A 500km cycle superhighway is being built. It is wide, safe and easy cycle path in and out of the city centre.
- The routes have air pumps, foot rests, safe intersections and traffic lights timed to average cycling speed.
- It is sustainable because there is less traffic pollution in the city and people are healthier because they cycle to work.
- Copenhagen is aiming to become more environmentally sustainable by reducing the amount of harmful carbon dioxide it releases into the atmosphere.





## Topic 5: Case Study - East Village in Queen Elizabeth Olympic Park, London

[Click here](#) to listen to a podcast about this topic.

This case study looks at an environmentally-friendly urban development.

When London won the bid to host the 2012 Olympic Games it promised that they would be ‘the most **sustainable** Games ever’. This meant that they would benefit the natural **environment** and leave a **legacy** to improve people’s lives in east London.

The focus point for the Games was the Olympic Park in Lea Valley. This was where the main sporting venues - the stadium, aquatics centre and velodrome . as well as the Athletes Village were located (photo **A**). It has since been renamed Queen Elizabeth Olympic Park. The venues are now all open to the public and the village has been converted into new homes and has been renamed East Village.

East Village was planned to house 17,000 athletes in 2012 and then provide 2,800 new homes (a mix of private, affordable rental and shared ownership) after the Games. The design of the village led to many environmental improvements:

- Land that was previously derelict was put to good use by building new homes.
- Ten hectares of parkland was created, including planting hundreds of trees, grassland and ponds to encourage wildlife.
- Good public transport, with bus routes and an underground station, provides routes into London (West End is only 20 minutes away and London airports can be reached within an hour).
  - 9 rail links, 195 trains per hour
  - 15 local bus services
  - Stratford Docklands Light Railway (DLR) station is a five-minute walk away.
- A new international station also provides connections with Europe.
- Good cycling and walking routes (42 km of canal walks) encourage fewer people to use cars.
- East Village has a water-recycling project:
  - Rain water from the gutters and roofs is reused to keep the gardens looking nice. Then the water is naturally filtered in ponds, then recycled to use for flushing toilets and irrigating trees.
  - Grey water from showers and washing machines is reused for flushing toilets.
  - A third less water will be used in the East Village per person than in the UK.
  - Landscaping of the area has enabled surface run-off to be caught, reducing the risk of flooding.

East Village is a large-scale housing development and is designed to be environmentally friendly (photo **B**). The buildings have many features that benefit both the environment and the people living there.

- Only certified timber has been used in the construction of the village.

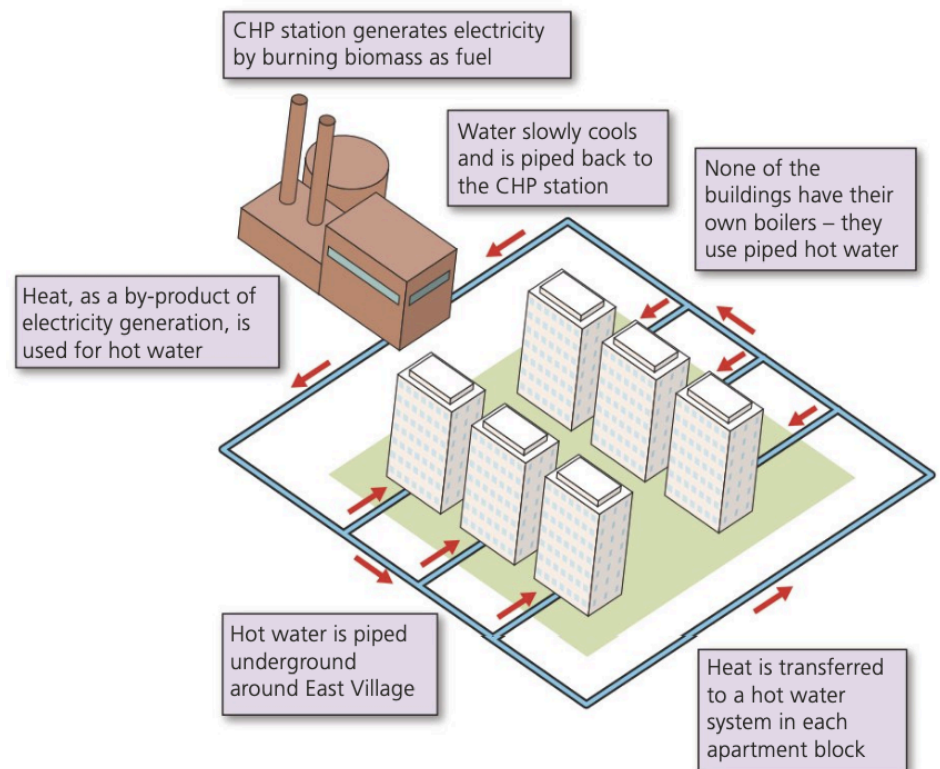


A: The Olympic Park with Central London and Docklands in the background



B: East Village housing in the Olympic Park

- 90% of construction waste was directed away from landfill.
- The apartment blocks are well insulated and double-glazed to save more energy. They use 30% less energy than normal homes and 183,000 tonnes of carbon will be saved annually.
- During construction, 4,000 local people were trained and worked on the building site.
- Each block has a green roof, with growing plants to slow drainage, absorb carbon dioxide and provide a natural habitat for wildlife.
- A rare black redstart was found to be nesting on site so construction halted until it had finished raising its chicks.
- A community orchard adds to the biodiversity of the area and also reduces air miles of some food supplies.
- Natural light has been incorporated into the design so fewer lights have to be switched on inside the homes. Use of LED lights cuts carbon emissions by 5,000 tonnes per year.
- Energy comes from a combined heat and power (CHP) energy centre which generates electricity and provides heat (diagram C).
- There is underground car parking space, but many residents do not have a car because most facilities are within walking distance.
- Half the homes are available at affordable rent, which is cheaper than the **market** rate for people on lower incomes.



Many services have been created in and around East Village, including:

- A school for 3 - 18 year olds called Chobham Academy, including a nursery.
- 30 local independent shops and cafes.
- Health facilities (the Ludwig Guttman Health and Wellbeing Centre).
- Children's playgrounds.
- Westfield Stratford City (shopping centre) easily accessible from East Village.

**C:** The combined heating and energy system in East Village



## Topic 6: How can we map urbanisation?

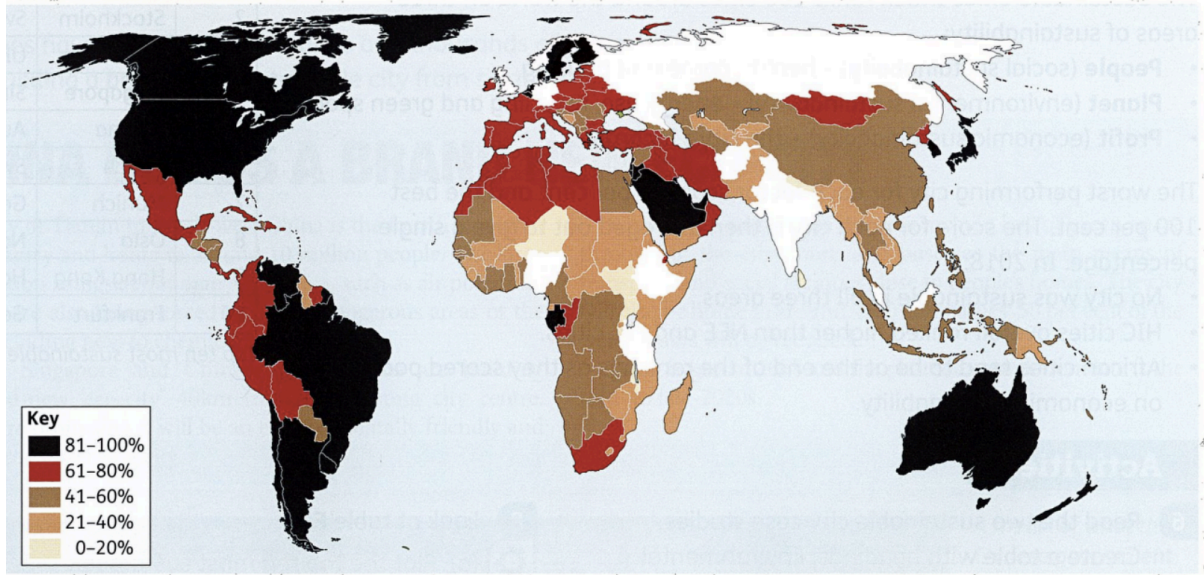
[Click here](#) to listen to a podcast about this topic.

You are going to look at global patterns of urbanisation using two techniques:

- Choropleth map (map **A**)
- Proportional symbol map (map **B**)

### Choropleth maps

Map **A** is a choropleth map showing the percentage of urban population worldwide in 2015. Notice that, in common with all choropleth maps, the colours become darker as the values increase. That makes it easier to see the overall pattern.

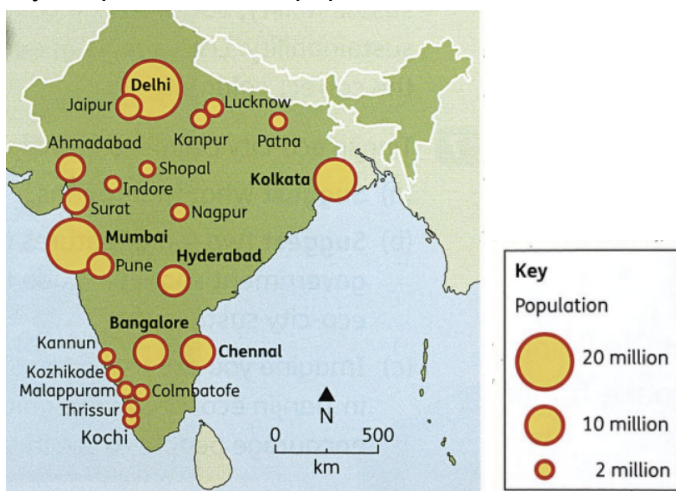


Map **A**: Choropleth map showing the percentage of urban population, 2015

### Proportional symbol maps

Proportional symbol maps use symbols, often circles, of different sizes to show information about places. If two things are proportional, they change at the same rate, e.g. the larger a city population symbol on a map, the bigger the population.

On map **B**, each city is represented by a proportional circle - the larger the symbol, the bigger the population in that city. Map **B** shows the population of urban areas in India in 2018.



Map **B**: Proportional symbol map showing the population of urban areas in India, 2018