

**A growing percentage of the world's population lives in urban areas**

Urban = Towns and cities

Rural = countryside

**Urbanisation is the growth in the proportion of a country's population living in urban areas.** The rate of urbanisation differs between countries that are richer than those that are poorer.

**HIC have very slow rates of urbanisation:** In richer parts of the world, urbanisation happened historically and most of the population now already live in urban areas. Many people in urban areas in HICs desire a better quality of life and are moving to rural area. Here they can commute to cities (because of better transport) or work from home (better communication).

**LIC** are less economically developed e.g. Ethiopia. Not many of the population live in urban areas . However, people are starting to move away from jobs in farming (rural areas) to urban areas. They are experiencing rapid urban growth.

**NEE** are those where economic development is increasing rapidly e.g. India and Brazil. They are experiencing rapid urban growth.

**Factors affecting the rate of urbanisation**

**1. Rural-urban migration** - is the movement of people from rural to urban area. The rate is affected by push-pull theory.

**Push factors** – things that encourage people to leave (Push them out)

**Pull factors** - things that encourage people to move to an area (Pull them to an area)

Pull Factors	Push Factors
More jobs in urban areas that are often better paid, Access to better health care and education, join family members, People think they will have a better quality of life and standard of living,	Less well paid jobs, Natural disasters, Mechanisation of agriculture – farms require fewer workers so there are fewer , Desertification, Conflict / War, shortage of services (education, water and power).

**2. Natural increase** - birth rate is higher than death rate so population growth

**3.** Young people move to urban areas to find work. These people then have children, which increases the proportion of people living in urban areas

**4.** High rates of urbanisation leading to the growth of **megacity** (a city with more that 10 million people living there). **Two third of megacities are in LIC+NEEs.**

**Urban Growth – Opportunities and Challenges - LIC and NEEs**

Often seen as overcrowded, polluted, with slums, inadequate services (water sanitation) but a centre of economic activity

	Social	Economic
Opportunities	<ul style="list-style-type: none"> <li>Better access to services e.g. health care and education</li> <li>Better access to resources such as clean water supply and electricity</li> </ul>	<ul style="list-style-type: none"> <li>Increase economic development</li> <li>As industry develops (industrialisation), more people move to urban areas to work in factories – there are more jobs and better wages than rural areas</li> <li>Industries create and sell goods on the <b>international market</b>. Manufactured goods make greater profits than unprocessed goods so industrialised countries get wealthier.</li> </ul>
	Social and economic	Environmental
Challenges	<p>Many people who move to urban areas from rural areas end up living in <b>squatter settlements (slums)</b> – settlements that are built illegally in and around the city, by people who cant ford formal housing</p> <ul style="list-style-type: none"> <li>Badly build and over crowded</li> <li>No access to basic services (running water, sanitation, electricity)</li> <li>Unclean conditions and lack of access to medical services mean people often have poor health</li> <li>No access to education</li> <li>High levels of unemployment and crime</li> </ul>	<p>If cities grow rapidly waste disposal services, sewage systems and environmental regulation for factories can't keep up with the growth</p> <ul style="list-style-type: none"> <li>Rubbish isn't collected so it leaves toxic rubbish heaps, which damage the environment</li> <li>Air pollution comes from burning fossil fuel from vehicles and factories</li> <li>Sewage and toxic chemicals can get into rivers, causing health problems and harming wildlife</li> <li>Infrastructure like road systems may not be able to cope with the growing number of vehicles. Congestion causes an increase in green house gas emissions which cause global problems. Locally, problems with health and acid rain also occur.</li> </ul>

**Mumbai; its location, cause of growth, importance**

- Mumbai, located in the country of India, in the state of Maharashtra on the north west coast of India. Facing the Arabian Sea
- Wealthiest city in India
- The city was originally a number of separate islands, which were joined together by a land reclamation (gaining land from the sea) projects over 100 years ago



**Growth**

- Rapid growth in the last 50 years – both area and population.
- 1950's concentrated around city centre
- Now it has spread north and south with 23 million people
- The growth is driven by rural to urban migration (Migration Facts: average 1 person a minute, 70% from the state of Maharashtra, average age of migrant 20-21 years old, 64% male)
- Most migrants: Economic migrants
- Natural increase also contributes



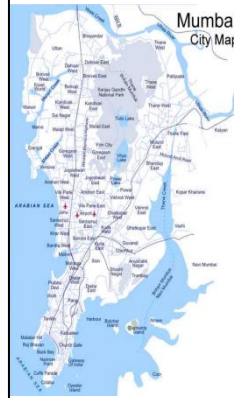
**Mumbai is a megacity**

**Importance In India**

- Commercial and Financial capital of India
- 60% of India's sea trade
- 3million people commute each day to the city. Growth in hi tech industry (call centres, online banking)
- Contributes 40% of the total income of state

**Global Importance**

- Most globalised city in SE Asia. It has the largest number of TNCs (inc GlaxoSmithKline, Volkswagen, Walt Disney)
- Busiest port and airport in India - is a Transport hub (connecting point for transport links) connects all industrialised cities in India. Air and ports transport and connect to major cities of the world
- Largest foreign investment
- Home to Bollywood, the India Stock Market, hub for smaller businesses inc. design, fashion,



**TNC - Transnational Corporations**

**Dharavi - slum in Mumbai**

**Mumbai; Urban growth creates opportunities and challenges for cities in LICs and NEEs:**

	<b>Social and economic</b>	<b>Environmental</b>
<b>Opportunities</b>	<ul style="list-style-type: none"> <li>• <b>Better access to services</b> e.g. health care and education and resources such as clean water supply and electricity in Mumbai than in surrounding rural areas. Some rural area have no electricity at all.</li> <li>• In poorer residential areas (like Dharavi) there is <b>good community spirit and support</b></li> <li>• Water treatment plants provide safe water piped directly to areas of the city.</li> <li>• <b>More employment opportunities</b> in industry+manufacturing electronic good and clothes this stimulates <b>economic growth</b>, 40% of India's trade happens from here.</li> <li>• <b>Incomes in the city</b> are higher and more reliable than in rural areas, with the average in Mumbai at \$2845 per year, compared to the rest of Maharashtra, which is \$1660 per year.</li> <li>• Urban poor provide a massive labour force who carry out essential jobs <b>both in formal and informal sectors.</b></li> </ul>	<p><i>For example in the slum of <b>Dharavi</b> while there are shacks and open sewers, there are thousands of factories that recycle material. Almost everything here is recycled from every type of plastic, industrial waste to soap. 80% of Mumbai's waste is recycled here. Something the west would love to achieve.</i></p>
<b>Challenges</b>	<ul style="list-style-type: none"> <li>• <b>Managing the growth of squatter settlements</b> – 40% Mumbai live here – problems like lack of services, unplanned, overcrowded etc. Poor sanitation, lack of water, land rights, poor health and low quality jobs are a huge issue</li> <li>• <b>Providing clean water</b> - Many parts of Mumbai have limited basic services this causes illness and disease eg cholera is common – as standpipes come on at 5:30am for 2hrs, this water must be rationed through the day.</li> <li>• <b>Sanitation</b> – 1 toilet per 500 people, and this waste goes straight into local rivers where clothes are washed and people drink from.</li> <li>• <b>Providing services health and education</b> – Both are in very limited supply in the slum and need to be paid for. This means that very few children attend school and so have limited job prospects.</li> <li>• <b>Reducing unemployment and crime</b>– The demand for skilled labour has meant that opportunities for unskilled workers are limited (more people less jobs available) and wages are low. This can cause crime rates to rise with pick pocketing and begging gangs operating.</li> </ul>	<p><b>Managing environmental issues</b> – Litter is not collected as many areas are illegal, this attracts mosquitos' and malaria. Lack of sanitation means <b>water is polluted</b>, this often used to drink causing cholera. Unregulated industries and increasing number of cars, increase the amount of <b>air pollution and water pollution. All which is unregulated</b></p>

An example of how urban planning is improving the quality of life for the urban poor

**Squatter Settlements - Slums, Favelas – Case Study – Dharavi, Mumbai, India** What are squatter settlements? Areas in cities that are **built illegally**, built by people **who cannot afford proper housing**. These people are usually rural to urban migrants. They build them with **materials they can find**, on land that doesn't belong to them, **They often have informal sector economy – cash in hand , no taxes, jobs created by the people themselves**. They are built badly and are over crowded&lack basic services like electricity. Life here is hard – no running water, no space, sewage, no police &some slums can be very dangerous and run by gangs. Often there is nowhere else for poor migrants to go. During monsoons season heavy rains make houses unstable. Due to no sewage and sanitation, water contamination is common and people get ill with diseases like cholera, diphtheria and hepatitis. In Dharavi, the settlement which is home to 1 million people per square mile. Good things - They do have a strong community spirit and barely any crime. Also almost everyone is employed in the informal sector.



The city authorities of Mumbai want to improve the quality of life of the people who live there. Current approaches across Mumbai are for whole **DEMOLITION** of the slums which are **replaced by high rise tower blocks with 14 stories** for people to live in. The land upon which Dharavi is built is next to Mumbai's financial district. This makes it a prime target for redevelopment. These types of redevelopment are planned for Dharavi by the **Slum Rehabilitation Authority (SRA)**. They have proposed a **\$2billion development project**.

Advantages

- Infrastructure will be built, this will mean waste management services will be able to dispose of waste effectively, this will improve the quality of life
- Industrial areas are away from residential areas, this will improve quality of life because people are safer
- Homes will have an address and people will be registered by the authorities, this means taxes will be collected and this money can be used to improve services
- Clean water is piped to every home and sewage pipes take human waste away. This reduces the number of diseases like cholera



Disadvantages

- **Recycling district will be lost – losing jobs** and a way 80% of Mumbai waste is recycled
- Very small flats 21m<sup>2</sup> – this means life could be worse because conditions are more cramped and families could be broken up
- Lose its community spirit – as there is very little community space
- As this area is now away from industrial areas, people will now have to commute to work
- Many poor people do not want to be recognised and pay taxes as they are too poor to do this
- Ancient communities within the slum are lost
- Dharavi currently is safe and has crime and communal areas. Also at risk are the local shops and markets and the community spirit which has taken generations to develop will be lost. The locals would prefer small improvements to the existing slum such as improvements in drainage.

Is there another way to improve the lives of the urban poor?

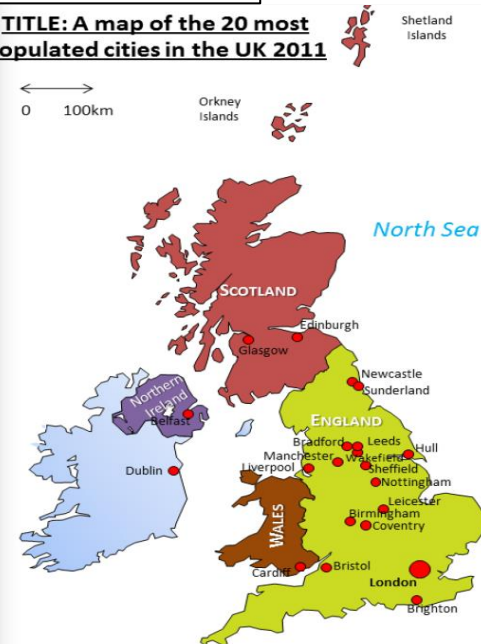
Yes, one that allows improvement to the slum itself.

- **The Mumbai slum sanitation project** – improving sanitation facilities in slums by building toilet blocks (currently 500 hundred share the same toilet and 1 in 20 use the street for a toilet)
- **The Mumbai Slum electrification project** – Many parts do not have electricity and rely on bottled gas for cooking and heating, this is expensive and dangerous (fumes, risk of fire etc) Over 10,000 slum dwellers in Mumbai have been provided with new or upgraded electricity connections.
- **Incremental housing strategies**– Developing informal slums into permanent residential areas by making gradual improvements. Families are given the right to the land on which their home is build and a grant given to make improvements. They work with an architect to design their homes. Local community stays together and has a say

Overview of the distribution of population and the major cities in the UK.

- The United Kingdom is a country with a high level of urbanisation (historic industrialisation) and great number of large cities. It has no megacities. London, the capital, with by far the biggest population at over 8 million inhabitants.
- The population is very unequally distributed over the four parts of the UK:** England makes up about 84 per cent of the total population, Wales around 5 per cent, Scotland roughly 8.5 per cent, and Northern Ireland less than 3 per cent. This is because the south east has good transport links, is close to the city of London which is the financial heart of England.
- Across the UK the highest population densities are found in major cities and as we move north through the UK population density falls, with the exception of the Edinburgh to Glasgow corridor. The upland areas in the UK have low population densities and the densest population can be found to the south east, in the area around London. It is in these areas where issues over housing shortages have been at their worst.
- The cities of the UK owe their origins to many different reasons, For example, Sheffield is famous for its steel industry, Newcastle coal and then ship building.

TITLE: A map of the 20 most populated cities in the UK 2011



**Population Density** a measurement of the number of people in an area

(distribution just means the way in which something is spread over an area)

**Sparsely population** – not many people in an area

**Densely population** – lots of people in an area

A case study of a major city in the UK to illustrate: (Case Study London) the location and importance of the city in the UK and the wider world

London

- Mumbai, located in the South East of England, located on the River Thames. It is the most densely populated area of the UK. It hosts the UK parliament.
- An important in the cities success are the Thames is a tidal river so the city became a port



**Facts**

- London's population is 12.5% of the UK's on just 0.6% of the land
- London is one of the most visited cities in the world
- 800,000 people commute to London for work every day

Growth

- 2000 years ago after it was built by the Romans it is still the capital city of the UK
- C18th, new docks were build, so the number of ships entering London as a port. London's importance as a centre of trade and commerce grew and new manufacturing industries developed. This attracted more people, and so the population increased.
- End of the C20th London's role as a port declines. However, it remains a transport hub for UK transport; both road and rail networked focus on London. Additionally, it has two of the UK busiest airports (Heathrow and Gatwick). This maintained its importance as a tourist destination.



**Facts**

- Over 2 million Londoners do not speak English at home
- The 3 most common languages are Bengali, Urdu and Polish
- 65% of London's land is either gardens, public green space or water

Importance In UK

- UK's capital, largest, wealthiest city
- Londoners earn 23% more than the UK average
- London generates 22% of the UK's GDP
- Transport Hub

Global Importance

- Along with New York, London is one of the two most important financial centres in the world
- London is home to 15 of the head offices of the 250 largest companies in the world
- London has 40 higher education institutions including some of the World's top universities
- London is a national and international centre for media, education, legal and medical facilities, culture entertainment and tourism

A case study of a major city in the UK to illustrate: (Case Study London) impacts of national and international migration on the growth and character of the city

- London’s population is higher now than its ever been. 1801 – 1million -> 2015 it reached 8.6million
- During the Industrial Revolution in C19th the city grew and attracted migrants from many parts of the UK. It continued growing, until the second world war, when the city was badly bombed and the population fell. Since 1991, the population has continued to grow and it is predicted that by 2030 the population will reach 10million and be a megacity.

**3 factors at play influencing the overall size and rate of growth of London’s population;**

1. **Internal (within the UK) migration** has been **negative**; that is the numbers of people moving out of London has been greater than the number of UK residents moving in. This balance has got smaller over time. Internal migrants into London tend to be in the age groups 20 -30, whilst those who tend to leave are over 30 or have children. This means that generally people migrate into London for work; and leave when they start having families.
2. **International net migration** has always been **positive**, so there have always been more foreign born people moving into London than out of it.
3. **Natural Change** has been **positive**, so births have been above deaths and this has boosted the population size.

Migration in particular has changed the CHARACTER of London. It is genuinely one of the most multicultural places on the planet with many different races, cultures and languages in evidence throughout the city Less than half of London’s population are of white British origin, while 37% were born outside the UK. The largest number are from countries like Indian, Nigeria, Jamaica. Since 2007, more migrants have come from Eastern Europe due to the free movement of people in the EU

**A case study of a major city (London) in the UK to illustrate: How urban change has created opportunities**

	Social and Economic	Environmental
<b>Opportunities</b>	<p><b>Cultural mix:</b> refers to a country or place that has more than one culture living together in close proximity. London is one of the most diverse places not just in Britain but on planet Earth; 2. In three boroughs - Newham, Brent and Tower Hamlets - white people are now in the minority. It enriches London cultural life, from food, music, cultural events e.g. Notting Hill Carnival, and BBC’s Asian Radio. he cultural mix in London also highlights what a broadly tolerant and Liberal people the citizens of the London are.</p> <p><b>Recreation and entertainment:</b> London is a hub for recreation and entertainment; Like: cultural attractions such as the British Museum, the National Gallery and the Natural History Museum., the West End (musicals and shows) ,tourist attractions such as Buckingham Palace and the Houses of Parliament. Also sporting events like Wimbledon. It also has a huge number of bars, restaurants and entertainment.</p> <p><b>Employment:</b> London is by far the largest contributor to the UK economy, London houses a major world financial centre and a range of business specialisms which attract a highly skilled workforce. London residents (aged 16 to 64 and working) are more likely to be employed in managerial, professional roles, which earn more money.</p> <p><b>Integrated transport systems:</b> Integrated transport means that all of the different forms of transport can link to one another (boat, bus, DLR, tube, rail, cable car, cycle (Boris Bikes)). Its transport network includes both private and public services. Public transport accounts for 25% of all journeys. Also London is surrounded by the major motorway the M25, and have four airports within 1 hour from it, it also has the Eurostar connecting London to Europe by train. Commuters can travel on all the above using the Oyster card</p>	<p><b>Urban greening:</b> Urban greening means to <b>increase the amount and proportion of green spaces within a city.</b> These green spaces are essential for people’s quality of life, environment, reduce flooding, wildlife, growing food.. London has made attempts to offer lots of green spaces within its urban area by; Creating <b>ROOFTOP green spaces, a huge range of green spaces open to the public</b> including Hampstead Heath in central London which combine open space, wildlife habitat and recreational areas. The new Olympic Park (Queen Elizabeth Park), has many parks for leisure activities and walking. Such areas create a more pleasant local environment.</p>



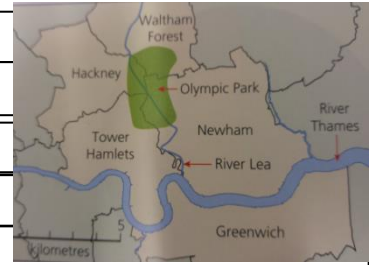
A case study of a major city (London) in the UK to illustrate: How urban change has created challenges

	Social and Economic	Environmental
Challenges	<p><b>Urban deprivation</b> or Social Deprivation is the degree to which a person lacks things that are essential to a decent life like work, money, housing, services and health. It is particularly hard for the poorest people to have a decent standard of living because the prices of many things are more expensive, especially rents which account for a huge proportion of peoples incomes. Areas like Newham in London has some of the lowest life expectancies, highest unemployment, lowest number of students attaining GCSE, and the lowest household incomes.</p> <p><b>Inequalities in housing, education, health and employment:</b> London is an incredibly unequal city. Billionaires live in very close proximity to people who survive on less than a living wage (Grenfell Tower). Indeed, incomes in London are more unequal than ANY other region of the UK. Social deprivation is a major problem in London, with over 2million living in poverty. <b>Housing:</b> House prices and rents are higher in London than any other part of the country. More people in London rent than own their house and those that rent pay more than half their weekly pay in rent. At the same time as those who live in poor quality, small rented accommodation, there are people living in the most expensive houses in the world. <b>Education:</b> Children across London do not get equal exam grades, but some of the school's in London's poorest boroughs are amongst the fastest improving schools in the country. Generally, the schools in the poorest areas score the lowest number of GCSE points per pupil. <b>Health:</b> The people in wealthy areas tend to live longer than those in the poorer areas of London. The census 2011 showed that the % of people reporting themselves as in "Not good health" was also highest in the areas of lowest income. <b>Employment</b> Despite the huge wealth found in London unemployment remains a major issue. The unemployment rate was 10.0 per cent compared with 8.4 per cent for the UK.</p> <p><b>Cultural mix</b> - One of the big issues for London is INTEGRATION (how well can people mix) – Many people can't speak English and have limited access to all of the advantages of being in the UK. Another issue is ghettos, how can we prevent economically poorer cultural groups living in the poorest parts of our cities. This can lead to gangs or crime. Language is another issue, and many public services such as schools and hospitals have to provide language translation services which is expensive.</p>	<p><b>Urban decline:</b> is the <b>deterioration of the inner city often caused by lack of investment and maintenance.</b> It is often but not exclusively accompanied by a decline in population numbers, decreasing economic performance and unemployment.</p> <p><b>Dereliction,</b> There is a sizeable supply of brownfield land in London, which to date remains untapped. 250 hectares of brownfield sites. The Olympic Park is a good example of how derelict land can be brought back into use.</p> <p><b>Growth of commuter settlements and the impact of urban sprawl on the rural–urban fringe:</b> The edges of cities are known as the rural urban fringe. There has been increasing building in these areas because of housing pressure, despite Greenbelt legislation (laws) that are supposed to prevent building there. The growth outwards of our cities into these regions is known as <b>URBAN SPRAWL</b> and can have many impacts on these areas; like increased traffic, health issues due to stress, extra cost to tax payer (pay for new roads etc), loss of rural land.</p> <p><b>Building on brownfield and greenfield sites:</b> Meeting the demand of housing is a problem for the UK. It is a small island with a growing population, to make matters worse the population is not distributed evenly. There is a huge housing shortage in the South East, which is causing high property prices and rental costs. We can build new houses on Greenfield and Brownfield sites. + <b>Brownfield Sites</b> – well connected to the CBD, connected to road and power networks, cleans up dirty unused land, - <b>Brownfield Sites</b> – Expensive to redevelop, noise and air pollution to people who live near by. <b>London has built up to 50,000 new homes on 20 brownfield sites,</b></p> <p><b>Waste disposal and air pollution:</b> London suffers from air pollution (some of the worse in the EU) due to its size and the dense road network. London is working hard to try and protect people and clean up the air by; free to download app that informs people of air quality - Cleaning up London's bus fleet by making them less polluting including buses that run on Hydrogen, Congestion Charge, Low Emission Zone , invest money in cycling networks and Boris Bikes. <b>Waste:</b> with a population as high as it is it produces huge amounts of waste. It uses a mixture of recycling, landfill (where the waste is dumped into the ground and energy recovery (the waste is burnt to produce electricity) to deal with this waste. The London waste management strategy is aiming to; To achieve zero municipal waste direct to landfill by 2025, reduce household waste, recycle or compost at least 45 per cent more, generate as much energy from organic waster. However, people still ignore this and too much waste still ends up in landfill, only <u>34% of waste in London is recycled</u>. <b>40% is incinerated</b> which causes huge amounts of air pollution. Landfill sites could run out in <b>8 years</b>, or more rural land will need to be used to dispose of this waste.</p>

## The challenge in the human environments: Urban issues and challenges (Paper 2: Section A)

### An example of an urban regeneration project to show:

#### The London Olympic Park – a case study of an Urban regeneration project



#### Social and Economic

<b>Why was regeneration needed?</b>	<ul style="list-style-type: none"> <li>Lower Lea Valley in East London was the site for the 2012 Olympics. Part of this area is in the borough of Newham</li> <li>Lea Valley was once the main industrial areas of London, it is also one of the most deprived (Use Data about Newham on previous page)</li> <li>Lots of derelict land</li> <li>Shortages in school spaces</li> <li>This area was lagging behind the rest of London, and this area being in the spotlight during the Olympics, the idea was to leave a legacy of not just sport but an improvement in East London. “London 2012 Olympic Legacy” – improve economically (encourage investment), Sports (facilities), Social (inspiring and social change) and Regeneration (reuse the land, new homes, improve infrastructure and buildings)</li> </ul>
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	Pros	Cons
<b>Was it successful: Socially</b>	<ul style="list-style-type: none"> <li>The athletes’ village has been relaunched as a housing estate called the East Village,. Almost half of these 2,818 new homes (40%) will be affordable. Eventually it will house 8,000 people.</li> <li>There was a shortage of spaces but a new school opened in the grounds of the park called Chobham Academy.</li> <li>The aquatics centre now uses its 50m pools as facilities for the community and schools, as well as elite athletes.</li> <li>Unemployment OVERALL fell across London during the Olympic period</li> </ul>	<ul style="list-style-type: none"> <li>The ‘affordable rents’ for the 2,800 new homes will be unaffordable to Newham’s poorest households = no improvement in living conditions</li> <li>MP for Tower Hamlets, said: “The impact of the infrastructure was great but unemployment actually went up during the Olympics.”</li> <li>During the construction of the Olympics, very few jobs were created for local people. There are still high levels of unemployment in the borough and it was a missed opportunity to train people up for work.</li> <li>Many people in the boroughs surrounding the Olympic Park remain in poverty</li> <li>450 Housing Association flats were torn down in this project, breaking up the local community</li> </ul>
<b>Was it successful: Economically</b>	<ul style="list-style-type: none"> <li>Stratford got a Tube station to help connect the area to the rest of London - Stratford is now second most connected part of London = good for trade and tourism.</li> <li>The infrastructure has been improved. As well as two Underground lines, a high-speed “javelin” train to King’s Cross, the Docklands Light Railway. This encourages investment in the future</li> <li>The Olympics brought more than £9bn of investment to east London, much of which went into transport</li> <li>18,000 new jobs created, with 8,000 at Westfield shopping centre</li> <li>ALL of the Olympic venues have been sold. The final building to be sold off was the £300m media centre, house a data company storing information</li> </ul>	<ul style="list-style-type: none"> <li>The Olympic stadium is estimated to have cost £701 million pounds, almost more than estimated</li> <li>The total bill for the Olympics was £8.77 billion of tax payer’s money. That was £5billion over budget. Could this money helped solve deprivation?</li> <li>Existing businesses had to move, including H. Forman and Sons, a salmon-smoking factory with 50 employees</li> <li>Rents and property prices have gone up as a result of the Games</li> </ul>
<b>Was it successful: Environmentally</b>	<ul style="list-style-type: none"> <li>Many of the grounds in the Olympic Park have been kept as parkland and are open to the public, also new green spaces, wildlife habitats inc ponds, woodlands, and artificial otter holes. New trees/plants were planted. The stadiums were made of at least 25% recycled materials</li> <li>The River Lea (runs through Olympic Park ) improved water quality .</li> <li>The urban wasteland of the Lower Lea Valley was cleaned up, with soil being cleaned, brownfield sites that had been neglected, unused, and contaminated.</li> </ul>	<ul style="list-style-type: none"> <li>Much wildlife had to be relocated from the River Lea; 4,000 smooth newts, 100 toads.</li> <li>Many of the materials for the stadiums and the Olympic Park came from overseas (fossil fuel burnt)</li> <li>The games produced 3.3 million tons of CO2</li> </ul>

## Features of sustainable urban living:

Urban sustainability is a massive issue both in the UK and globally. Urban areas need to be more sustainable. **Sustainable living means doing things in a way that lets the people living now have the things needed without reducing the ability of people in the future.** This means, not damaging the environment for the future, **reducing the amount the use of fossil fuel.** Sustainable cities - an urban area where residents have a **way of life that will last a long time.** The **environment is not damaged** and the **economic and social fabric**, due to **local engagement are able to stand the test of time.** It includes: Economy, Environment and People

### Ways a city can become more sustainable (better for the future)

<p><b>Water Conservation</b> – Only as much water should be taken from the environment as can be naturally replaced. Water conservation schemes reduce the amount of water used. It is important because our demand is increasing in the UK. For Example:</p> <ul style="list-style-type: none"> <li>○ collecting rainwater for the use in gardens or flushing toilets (grey water)</li> <li>○ Installing toilets that use less water to flush (dual flushing)</li> <li>○ Installing water meters so that people have to pay for the water they use</li> <li>○ Encouraging people to use less water e.g. by turning taps off whilst brushing their teeth</li> </ul> <p><b>Problems:</b></p> <ul style="list-style-type: none"> <li>○ A growth in more wasteful water use – cleaning cars, filling hot tubs</li> <li>○ Water companies are not managing the pipes and 130 litres per household is wasted each day</li> </ul>	<p><b>Waste Conservation</b> - More recycling means few resources are used, e.g. metal cans can be melted down and used to make more cans. Less waste is produced, which reduced the amount that goes to landfill. Landfill is unsustainable as it wastes resources that could be recycled and eventually there'll be nowhere left to bury the waste. Decomposing landfill also releases greenhouse gases.</p> <p>Schemes include:</p> <ul style="list-style-type: none"> <li>○ Collection of household recycling boxes / bins = less at landfill</li> <li>○ Recycling facilities for larger items like fridges</li> <li>○ Websites e.g. Freecycle where items are offered for free so they can be used by others instead of being thrown away</li> </ul> <p><b>Problems:</b></p> <ul style="list-style-type: none"> <li>○ Less than half, 43% of the UK waste is recycled as people ignore rules and inefficient 2 week collections</li> <li>○ Incineration rates have increased to prevent landfill being used, this produces huge amounts of air pollution.</li> </ul>	<p><b>Energy conservation</b> – Burning fossil fuels to generate power isn't sustainable because they'll run out. Burning them also increases the rate of climate change because it produces greenhouse gases. Energy conservation schemes reduce the use of fossil fuels</p> <ul style="list-style-type: none"> <li>○ Promoting renewable energy sources (wind, solar, tidal etc.) over traditional coal or gas fired power station</li> <li>○ Government incentives to make homes more energy efficient e.g. allowing homeowners who generate electricity from renewable sources (solar panels) to sell excess to the national grid.</li> <li>○ Making sure new homes that are built meet the minimum energy efficiency requirements</li> <li>○ Encouraging people to use less energy at home e.g. by turning off lights when they're not needed</li> </ul> <p><b>Problems</b></p> <ul style="list-style-type: none"> <li>○ Renewable energies can be expensive, this is increasing electricity costs on the consumer, and slowing down how quickly we change.</li> <li>○ Wind and solar farms can be inefficient, with one report showing that solar panels produce nothing for 30 weeks of the year.</li> <li>○ Wind turbines are an eye sore and noisy, this is preventing many being built.</li> </ul>	<p><b>Conserving natural environments/ Creating green spaces</b> – Urban areas can be noisy, dirty, and busy they are unsustainable because people find them unpleasant and stressful. Creating green spaces in urban areas helps people remain in the urban area. This is because</p> <ul style="list-style-type: none"> <li>○ An area for habitats with the city</li> <li>○ They encourage people to exercise more and to use alternative transport e.g. bikes. This makes people healthier and less stressed</li> <li>○ Provide people with a break from the noise</li> </ul> <p><b>Problems</b></p> <ul style="list-style-type: none"> <li>○ Limited space, only 5% of London is used for urban greening. With the growing housing crisis it is difficult to set land aside.</li> <li>○ In 2017 'London Garden Bridge' was scrapped due to cost. This shows that the environment is low on the governments concerns.</li> </ul>
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<p><b>How urban transport strategies are used to reduce traffic congestion.</b></p>	<p><b>The problems:</b></p>
<p><b>Traffic Congestion is a big problem for Urban areas.</b> More people are now commuting to work usually by car, also more businesses are using lorries or vans for deliveries. This means there is more traffic congestion. The problems this causes social, environment and economic problems like: discourages people from visiting and shopping in the city. Traffic causes more traffic jams, air pollution, congestions cause stress, more accidents, slow emergency services, contribute to climate change</p>	<p><b>Congestion charges</b> – These can have a negative impact on businesses as less shoppers.</p>
<p><b>Using Public Transport Reduces Traffic Congestion:</b> This is a strategy to reduce the numbers of cars on the road. <b>London</b> has done this by Docklands Railway, Underground (takes 3million off the road a year), Self service bicycles are available to hire, Electronic Oyster Cards, and use of contactless allow people to move between all these links without buying a ticket. Many other cities have a park and ride scheme. The congestion charge has improved journey times by 30%.</p>	<p><b>Public transport</b> – Many people aim to avoid public transport as it can be unreliable and does not take you to the exact location – bus use hit its lowest levels in 2016.</p>
<p><b>Traffic Flow can also be managed:</b> Traffic congestion can also be reduced by managing the flow of traffic through the city. For example: <b>Ring roads and pedestrianised</b> shopping streets keep traffic away from the city centre making it safer and less polluted and reduces congestion. <b>Bus Priority Lanes</b> - promote public transport and also stop buses being held up in traffic. <b>Congestion Charging (London)</b> discourage drivers from entering the city centre at peak times. Car sharing, Promoting flexible working hours,</p>	<p><b>Ring roads</b> – The M25 is the largest ring road in the UK and goes around London, it actually attracted more people to drive as they thought they would avoid congestion, it is now one of the most congested roads in the country.</p>