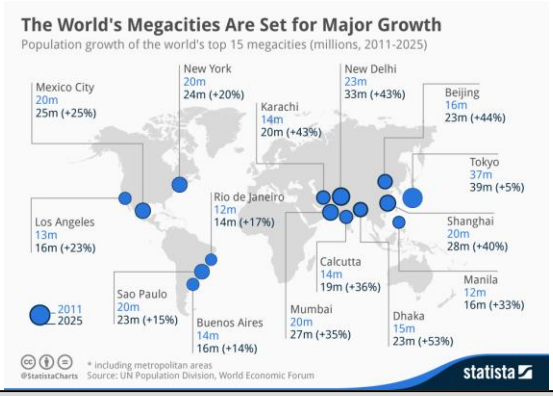
GCSE Urban Issues and Challenges – Urbanisation and Rio Knowledge Organiser

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

Key terms	Definitions
Mega cities	Urban area with population in excess of 10 million people
Migration	When people move from one area to another
Natural increase	Birth rate minus death rate
Urbanisation	The process by which an increasing percentage of the country's population comes to live in towns and cities
Global pattern of urban change	• More than 50% of world's population live in urban areas • By 2030 it is expected to be more than 60% • By 2050 expected to be more than 70% • In 1950 there were 4 megacities • Now there are more than 20
Urban trends worldwide	• Highest rate of urbanisation in LICs due to rural to urban migration and high rates of natural increase (birth rate much higher than death rate) • Lower rates in HICs as already urbanised and have aging population • Some NEEs in South America following HICs pattern • Largest increase in India, China and Nigeria – by 2050 urban areas will have grown by 37%
Emergence of megacities	• Asia – huge population. Massive rural to urban migration. Rates fluctuate • China – Pearl River Delta – 120 million people as merging Hong Kong, Shenzhen and Guangzhou • Most megacities will be in China and India



KI : Urban growth creates opportunities and challenges for cities in LICs and NEEs

Key terms	Definitions
Economic opportunities	Chances for people to improve their standard of living through employment
Pollution	Presence of chemicals, noise, dirt etc which have harmful or poisonous effects on an environment
Sanitation	Measures designed to protect public health e.g. clean water
Social opportunities	Chances for people to improve their quality of life
Squatter settlement	An area of poor quality housing lacking in amenities which develops spontaneously and illegally
Traffic congestion	Occurs when there is too great a quantity of traffic for roads to cope with

Case study : Rio	Urban growth creates opportunities and challenges for cities in LICs/NEEs
Location and importance regionally, nationally and internationally	**Regionally** – large companies, most visited area in s. hemisphere, major commercial & administrative centre **Nationally** – Capital until 1960, major port, 2nd most important industrial centre 5% country's GDP, major tourist centre. 5 ports 3 airports **Internationally** – Olympics in 2016, 2014 soccer world cup, UNESCO world heritage site, cultural capital famous internationally for tourists re dance & music/ Rio Festival, has Christ the redeemer 1 of the 7 wonders of the world
Causes of growth	**Natural increase** – youthful population and most migrants are young **Rural to urban migration.** Push factors – low wages, changing climate, poor services, land shortages, degraded land. Pull factors – well paid jobs, urban lifestyle, higher standard of living, friends and family, education, medical care.

Opportunities

Social

Health & Education

Education- The local government is using education to reduce youth unemployment. Free child care is provided for teenage parents to enable them to return to education. Health- One example of how the authorities have tried to improve health care is the favela of Sante Marta. On a steep hill with a population of 8000, it has few roads and the main means of access is an over crowded cable car. Its 13km to the nearest hospital. So medical staff take health kits into peoples homes and detected 20 diseases that they managed to treat. As a result infant mortality has fallen & life expectancy has increased. Education- The authorities have tried to improve access to education by: Encouraging locals to volunteer help in school; Making money available to pay for free lessons in volleyball, football, swimming & squash in Rocinha favela, Opening a private university the favela

Access to Resources

Energy- The electricity supply to Rio has been improved by installing 60km of new power lines, building a new nuclear generator, developing the new simplicio hydro-electric complex

Crime-The police have taken steps to control crime. In 2013 Pacifying Police Units (UPPs) were established to reclaim favelas from drug dealers. Police have taken control of crime dominated Complexo do Alemao and 30 smaller favelas.

Traffic- Improvements have been aimed at reducing congestion & air quality. The metro system under Guanabara Bay to the South zone & Barra da Tijuca has been expanded, new toll roads into the city centre have been made, and making coast roads one way during rush hours to improve traffic flow

Economic

How urban areas can be a stimulus for economic development

Favelas -The policy to improve the city's favelas has improved quality of life and the growing economic prosperity has attracted many large companies creating developments, which include the Olympics which have boosted the tourism sector that have created a range of new economic opportunities in the formal economy.

Challenges

Managing Urban Growth

Providing clean water, sanitation systems &energy

Energy- A power plant has been set up near the university of Rio using methane gas (biogas) from rotting rubbish. It uses 30tonnes/day producing enough electricity for 1000 homes Energy – the whole city suffers blackouts frequently due to a shortage of electricity. The growing population & the Olympics were expected to make things worse. Many people living in the poorer parts get electricity by illegally tapping into the main supply which is risky & unsafe. Water supply - Around 12% of the population didn't have access to running water. Estimated 37% of water lost through leaky pipes, fraud & illegal access. Waste –. Most waste from favelas gets dumped and pollutes the water systems which causes diseases like cholera and encourage rats

Providing access to services (education & health care)

Health Care – in 2013 only 55% of the city had a local family health clinic. Services for pregnant women & elderly were very poor, especially in West Zone

Education - education in Brazil is compulsory for 6-14 year olds. In Rio only half continue education beyond 14. many drop out of school and some get involved in drug trafficking.

Managing Environmental Issues (Waste disposal, air & water pollution, traffic congestion)

Waste-Overseas aid has helped reduce sewage.12 new sewage works have been built since 2004 5km new sewage pipes installed around badly polluted areas

Traffic – It's the most congested city in South America. There is bad congestion because roads can only be built on coastal low lands, tunnels are needed through mountains, cars have increased by 40% in 10 years, crime makes people choose to travel by car.

Waste- Many of the 55 rivers entering Guanabara bay are heavily polluted, coming from runoff through open favela sewers and industrial waste and oil spills from the Petrobas

Unemployment & Crime

Crime – murder, kidnapping, carjacking & armed assault occur regularly. Street crime is still a problem, especially at night. Powerful gangs control drug trafficking in many of the favelas.

Unemployment –Unemployment causes large wealth contrasts. Favelas having 20% unemployment, many work in the irregular informal economy, poorly paid & generating no tax.

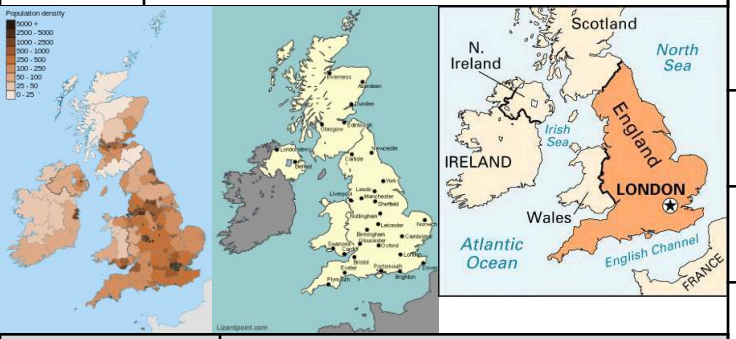
Self-help schemes – Rocinha

Residents of Rocinha transformed favela into a small city.
Buildings upgraded to brick and tile. Many lived here since favela developed in 1950's. Set up own shops and small industries - the 'informal sector'. Authorities now accepted the existence of favelas and added electricity, paved and lit some streets and added water pipes. Improvements restricted by steep hillside and high density of housing. **Favela Bairro Project**: City authorities set aside £200 million to improve 60 of the 600 favelas. The plan include - replacing wood buildings and those built on dangerous slopes with larger (5x4m) brick houses, widening streets, laying pavements, laying water pipes and electricity cables, improving sanitation, providing health and sports facilities, using local residents as labour. **New town of Barra da Tijuca**: Wealthy residents of Rio looked for a safer place to live with more space. Nearest flat land 20KM along coast. 1970 4 lane motorway cut through mountains and on stilts over sea. 1995 New town of Barra had population of 130,000. Process of counter-urbanisation. Self contained city.5 KM of shops, schools hospitals, offices, entertainment. Spacious, luxurious accommodation. 3/4 of accommodation is in high-rise apartments, protected by security guards. Barra already has its own new favelas.

GCSE Urban Issues and Challenges – Manchester and urban sustainability Knowledge Organiser

KI : Urban change in cities in the UK leads to a variety of social, economic and environmental opportunities and challenges

	Overview of the UK population and major cities in the UK
Population	260 per km² on average 5000 per km² in London and less than 10 per km² in North of Scotland Most in low lying flat areas especially by coasts and rivers
Cities	Fastest growing are in south east. London the fastest growing Sunderland is the only city with a decreasing population



Case study : Manchester	Urban change in cities in the UK leads to a variety of social, economic and environmental challenges and opportunities
Location and importance of city in UK and wider world	• North West England • Hub for transport networks • Home to United and City, has 1.7 million people every year for sporting activities. • Extensive canal network (36km) • 19 million use Manchester airport each year • Universities, research, tourism, culture, media, communications
Impacts of national and international migration on the growth and character of the city	• 2.5 million live in Greater Manchester • Increased during industrial revolution (textile manufacturers) • Several universities housing over 75,000 students • Young population in 20s and 30s moving for work. Also pushing up the rate of natural increase • Migrants from worldwide • Multicultural – current influx from Eastern Europe • White British 68%, Asian 14%, Black 8%

Key terms	Definition
Brownfield site	Land that has been used, abandoned and now awaits some new use
Dereliction	Abandoned buildings and wasteland
Greenfield site	A plot of land that has not yet been subject to any building development
Inequalities	Differences between poverty and wealth as well as in peoples' wellbeing and access to services
Integrated transport systems	When different transport systems connect together making journeys smoother and public transport more appealing
Rural urban fringe	Zone of transition between the built up area and the countryside
Social deprivation	The degree to which an individual or an area is deprived of services, decent housing, adequate income and local employment
Urban greening	The process of increasing and preserving open space such as public parks and gardens
Urban regeneration	The revival of old parts of the built up area by renewal or redevelopment
Urban sprawl	Unplanned growth of urban areas into the surrounding countryside

Case Study : Shoreditch, London	How urban change creates opportunities
Cultural Mix (Social)	• Ethnic diversity has brought a range of foods, festivals and cultural experience to the city. For example Chinatown and the Curry Mile in Rusholme.
Recreation and Entertainment (Social)	• The Trafford Centre was built on brownfield land in Trafford Park • Over £1 billion was spent regenerating Salford Quays to include the Lowry Centre, Imperial War Museum, Lowry Outlet Mall and Media City.
Employment (Economic)	• Tourism and services offer many jobs, along with business developments and the retail industry. • Development of Media City at the quays has brought creative industries including the BBC.
Integrated transport systems (Social and economic)	• The Metrolink Tram system has been heralded as a huge success and continues to expand throughout Greater Manchester
Urban greening (Environmental)	• Parks, woodlands, cemeteries and gardens produce oxygen, decrease flooding, more habitats, healthy recreation and can grow food • creating park spaces on previously developed land for example the lawn in Spinningfields and LeftBank down by the River Irwell.
Case Study : Manchester	How urban change has created challenges

Socio-Economic Challenges

Industrial Decline the 20th century left much of Manchester's inner city very deprived. Areas of the inner city such as **Ancoats and Castlefield were desolate and some of the most deprived in the country.**

Some inner city areas have been redeveloped – existing housing is cleared and replaced by modern apartments. The new housing is too expensive for the former residents who are forced out of the city **an example of this is the regenerated area of Castlefield.**

Many children in deprived areas of Manchester leave school without basic qualifications, leading to low income and higher unemployment in some areas of the city. **An example of this would be Gorton where unemployment is 3% higher than Withington.**

Unhealthy lifestyles for example drinking, smoking and poor diets are more common in deprived areas. **For example life expectancy in Clayton is 10 years lower than in Didsbury.**

Environmental Challenges

As people left inner city areas buildings were left empty. Derelict buildings were targets for graffiti and vandalism. **Areas such as Ancoats became run down and crime rates rose.**

The growth of the city and movement of people to the suburbs means there is pressure to build on greenfield sites which destroys natural habitats **for example the expansion of Didsbury in the rural-urban fringe.**

Case Study : Salford Quays	An example of a regeneration scheme
Reasons why the area needed regeneration	Previously the site of Manchester Docks, at their height the Manchester Docks were the third busiest port in Britain, but due to the rise in companies using large container ships which could not fit up the canal the docks declined swiftly during the 1970s. The docks finally closed in 1982 resulting in the loss of 3,000 jobs.
Main features of the project	• 1995 town houses built at Grain Wharf • 1996 flats built at Merchants Quay • 1999 Metrolink opens linking Salford Quays to the city centre. • 2000 the Lowry Arts & Entertainment Centre opens • Summer 2001 The Lowry Outlet Mall opens • Summer 2003 The Imperial War Museum North opens • 2005 NV Buildings flats open • 2007 Media City Opens and the BBC and ITV move to Salford Quays • 2010 Media City Metrolink line extended to Media City • 2015 Hotel Football opened by Ryan Giggs, Gary Neville and Paul Scholes.

KI : Urban sustainability requires management of resources and transport

Key term	Definitions
Sustainable urban living	Includes the use of renewable resources, energy efficiency, public transport, accessible resources and services
Waste recycling	Process of extracting and reusing useful substances found in waste

Case Study : Freiberg, Germany	Features of sustainable urban living
Collecting and recycling water	• Green roof gardens have water harvesting systems which collect rainwater to reuse. • Inhabitants are given incentives to use less water. • Waste water systems allow rainwater to be retained, reused, or seep back into the ground.
Preventing overuse of water	• Toilets installed that use less water to flush • Water meters that remind residents how much water they are using.
Renewable energy	• 400 solar panel installations in the city (including at the railway station and football stadium). • Freiburg's solar valley employs 1000 people • Homeowners can sell excess energy to the national grid.
Creating green spaces	• Afforestation – 75% of the deforested trees are re-grown every year. • 40% of the city is forested, of these 56% are nature conservation areas.

How urban transport strategies are used to reduce traffic congestion

- Curitiba – Integrated bi-articulate buses. 5 main routes. Interlink.20,000 passengers an hour. 1 a minute. 1.5 million passengers a year. Also 2 airports. 62 miles cycle lanes
- Freiburg – 400km cycle paths, 9000 bike parking spaces, 30km tram network connected to 168km bus routes
- Singapore – restrict entry to city, electronic pricing system, high petrol prices, quota for new cars, car sharing schemes, overhead railway, efficient bus network, electronic control f traffic systems