

The Urban World: Lagos (CASE STUDY)

An increasingly urban world and Megacities

Urbanisation: the proportion of the world's population who live in cities is growing. It is the result of the natural increase of a population plus migration. Urban growth is the increase in the area covered by cities.

Distribution

- In most of the world's richer countries over 60% of the population live in cities
- In South and Southeast Asia around half the population live in towns and cities
- The largest growth in urban population will take place in India, China and Nigeria

Megacities

Megacities are cities with a population of over 10 million. In 2015 there were 28 megacities. There are 3 types

- Slow growing, e.g. Tokyo
- Growing e.g. Beijing

Push factors	Pull factors
Farming is hard and poorly paid Desertification and soil erosion Drought reduce crop yield Farming is often at subsistence level, leaving nothing to sell Poor harvests lead to malnutrition Few doctors or hospitals Schools provide basic education Isolated due to poor road	More well-paid jobs High standard of living Friends and family living there Better chance of education Better public transport Range of entertainments Better medical facilities

1. Location and importance

Location: In Nigeria, West Africa, Gulf of Guinea, borders Lagos Lagoon

Regional/National importance	International importance
<ul style="list-style-type: none"> • Capital until 1991 • 80% Nigeria's industry based in Lagos • Many of Nigeria's businesses base their HQs in Lagos e.g. Nestle Nigeria, Dangote Group 	<ul style="list-style-type: none"> • The main financial centre for West Africa • 80% of flights to West Africa go via Lagos • The port facility on Tin Can Island in Lagos connects Nigeria to the world through global trade.

2. Causes of growth: natural increase + migration

Push factors (from rural areas)	Pull factors (to urban Lagos)
Farming = low wages + hard work	Thriving film industry 'Nollywood'
Climate change → crop yields unpredictable.	Job opportunities in manufacturing and services
Land degraded by oil industry → farming is more difficult	Access to electricity so people can develop businesses
Terrorist activity by Boko Haram in north and rural areas	Education and health care services better in the city

Why is natural increase high in LIC/NEE cities?

- There is better healthcare so more children survive, and death rate lowered, so the population grows
- The population is younger, so they are more likely to have children and increase the population

3. Urban growth creates opportunities

Social	Economic
68% have a secondary education in Lagos (40% of people in rural areas don't get a primary education) → more people become skilled → over 10 universities in Lagos state alone	Become a big industrial area, headquarters of big companies like Unilever and Shell are located in Lagos → provides jobs in formal and informal economy.
The city has better access to electricity than the rest of the country, and uses around 40% of country's supply.	More factories for oil industry being built → multiplier effect
Treatment works → access to clean water.	Using this wealth to build a new city on the coast called EkoAtlantic – the new financial hub of West Africa (provide 150,000 jobs)
Healthcare is closer and more available in Lagos so life expectancy (55 years) is higher than in rural areas	

4. Urban growth creates challenges (social and economic)

	Managing urban growth – slums and squatter settlements	Providing clean water, sanitation systems and energy	Providing access to services (H&E)	Unemployment and Crime
Problems	60% live in slums Development of slums like Makoko built on the coast of Lagos. No/little services: <ul style="list-style-type: none"> • 15 houses to one toilet • 3km to clean drinking water • less than 10% get primary education • houses are prone to flooding and have poor access to electricity • cramped conditions can spread disease 	<ul style="list-style-type: none"> • Only 10% of people in Lagos have piped water. People end up digging their own bore holes and wells. • Septic tanks can leak into the aquifers and pollute it, boreholes require generators which are expensive, industrial waste illegally dumped in rivers, rising sea levels cause flooding contaminating groundwater by salt. • 540m gallons required per day, only 200 m provided • Egbin Power Plant has not been able to provide enough electricity to Lagos' growing population, frequent power cuts 	<ul style="list-style-type: none"> • Most in informal areas live on less than \$1.25 a day • Healthcare free in government clinics though often long queues • Over 1000 children in Makoko slum are in need of education, and there is only 1 small school 	<ul style="list-style-type: none"> • 28% unemployment rate in 2010. Lack of jobs force people to work in the informal sector of the economy. • People work in the informal economy often working washing cars, street selling of waste recycling on landfill sites, sorting waste. • Lagos has high crime levels especially in drug trafficking and gangs.
Solutions	In July 2012 dozens of homes were destroyed by government officials and residents were given just 72 hours' notice of eviction.	2 new power stations planned	Makoko's floating school prototype	3 helicopters bought to spot criminal activities such as muggings, burglaries and car jackings.

5. Managing environmental issues – waste disposal, pollution, traffic congestion

	Waste disposal	Air and water pollution	Traffic congestion
Problems	10,000 tonnes of waste are delivered each day to Olusun landfill site . Container ships import waste, including electronic waste, from all over the world.	There is not adequate wastewater treatment so the lagoon becomes polluted leading to waterborne diseases Faulty septic tanks leak into aquifers. Industrial waste is illegally dumped in rivers. Waste and sewage from slums is often disposed directly into lagoon	<ul style="list-style-type: none"> • Not enough highways connect residential and commercial areas, means that all traffic have to cross from mainland to Lagos Island (CBD) • The average commuter in Lagos spends over 3 hours in traffic every day. It makes Lagos one of the most congested cities in the world. • Impacts: high fuel consumption, loss of earnings, respiratory illness, businesses losing money due to delay in deliveries
Solutions	A community of 5,000 rag pickers live next to the site and sift through it, earning a good living by selling scrap metals, wires and other waste. Yet there is clear evidence of waste entering the waterways and lagoon, so this is not a sustainable long-term solution to Lagos' waste problem.	In 2012, Lagos formed the Lagos State Water Regulatory Commission to give licences to boreholes to make sure they are not polluted.	Traffic is managed through radio announcements so that commuters can easily navigate around traffic jams. In 2003 the Lagos Metropolitan Area Transport Authority (LAMATA) created a bus rapid transit (BRT) to take people from the suburbs to the CBD. They have built a separate bus lane too which takes 220,000 every day (but still on just 25% of commuters in Lagos). This reduces travel time by 30% and reduces air pollution, the bus fares are also affordable for even the poorest in Lagos.

6. Planning for Lagos' urban poor

Floating school	Eko Atlantic
<p>In 2014 a new floating school was built, taking up to 100 children. It was designed by a Nigerian architect with local people and part-funded by NGOs and the United Nations Development Programme. It floats so as to adapt to rising sea levels. There are also solar panels on the roof which gives the school electricity sustainably.</p> <ul style="list-style-type: none"> - In a village stricken with poverty, the school gives residents of all ages a chance at free education. - It serves as a model of how to build prospering communities on the water. - It provides the children with basic services including clean drinking water and a functioning compostable toilet - As the only public space in the area, it has become a vital meeting-point for the community where, when classes are out, market ladies park their boats and fishermen steal some shade to mend their nets. <p>However, the school unfortunately sunk, so a more sustainable design needs to be made for this idea to help the poor living in Makoko. Only one school built, while 1,000 children in Makoko need education.</p>	<p>This new development is 10km² in area and has been created from 3,000,000 m³ of sand. The aim is provide luxury homes for 250,000 residents, with tree-lined streets, and world class sewage and waste disposal systems. The investment comes from the Lagos State Government and private companies such as South Energix Nigeria.</p> <ul style="list-style-type: none"> - The Project will bring significant direct investment into Lagos since it aims to become financial hub of West Africa. - The Eko Atlantic Project will generate economic benefits due to increasing employment and more jobs in the supply chain e.g. jobs in service sector - The reclaimed land will have the added benefit of protecting Lagos from flooding and storm surges. <p>Although this project may solve the problem of overcrowding and traffic congestion, poor families living in slums like Makoko do not really benefit. Neighbouring communities will have difficulty dealing with the increase pressure on services and many jobs will not go to the very poorest of Lagos. It may also cause water pollution and there are environmental concerns over the use of dredging to gain material to reclaim the land from the sea. It is feared the use of sand may accelerate coastal erosion.</p>

Sustainable urban development: Freiburg (CASE STUDY)

1. Planning for urban sustainability

In 1970, German city of Freiburg set a goal of urban sustainability

Social planning	Economic planning	Environmental planning
Local people can invest in renewable energy resources e.g. in one district over £5 million invested, Investors received free football season tickets in addition to financial returns.	Many jobs have been created in the research and manufacture of solar technology. For example, 'Solar Valley': Solar training centre, factory employs 250 people, many solar institutions have HQs here	More than 88% of packing waste is recycled, so less waste is created and ends up in landfill. 350 community collection points for recycling.
Financial rewards are given to people who compost their green waste and use textile nappies.	Freiburg is a city where people come to attend conferences on sustainability, and this provides jobs for local people.	Vauban is an inner-city district, and it houses 5500 people in low-energy buildings with green roofs covered in vegetation that store/collect/reuse water. Biogas made from waste food and powers 28,000 homes. This energy source is carbon neutral and reduces food waste.

2. Sustainable living in Freiburg

Sustainable Water Supply	Green roofs (look attractive and) are used to harvest rainwater Pervious pavements built that allow rainwater to soak through Drainage wetlands Unpaved tramways Water in River Dreisam managed using flood retention basins, stored water reduces flooding and can be used in city
Sustainable Energy Supply	City plans to be 100% powered by renewable energy by 2050 400 solar panel installations in city including the main railway station and football stadium Produces 10 million kW of electricity per year from solar energy Biogas generated produces enough energy to heat city's 3 swimming pools
Green spaces in urban areas	56% of forests are nature conservation areas of which 50% is managed and the remaining 6% left wild. River Dreisam is allowed to flow unmanaged to provide natural habitats. Only native trees and shrubs are planted in 600 hectares of parks 44,000 trees planted in parks around the city

3. Sustainable traffic management strategies

Freiburg

- The city has an integrated traffic plan which is updated every 10 years
- Tram network provides efficient, cheap and accessible public transport
- 400 km of cycle paths with 9000 parking spaces for bikes
- Restrictions on car parking spaces; in Vauban district each one costs £20,000
 - Tram journeys have increased by over 25,000 in one year while car journeys reduced by 30,000
 - Freiburg has lower car density with less than 500 cars per 1000 residents
 - This eases congestion so air quality improves and so does the health of the residents

Beijing

- Only 20% of people who apply to own a vehicle are allowed to do so
- Cars are banned from the city one day a week based on a number plate system. Non-residents cannot bring a car into the city.
- Congestion charge and pollution tax introduced to help improve air quality
- Thirty new metro lines and a rapid bus transit system to be built by 2020. The metro currently serves only half of Beijing's population
 - Restrictions have led to a 20% drop in car use
 - 12% drop in the use of car parks in city centre
 - Building and widening roads resulted in increased car use at expense of cycling

Urban Change in the UK: Portsmouth (CASE STUDY)

Where do people live in the UK?

Distribution

- UK population is unevenly distributed, with 82% living in urban areas
- One in four of those live in London and southeast
- Many highland regions or Scotland and Wales are very sparsely populated. These are upland areas that are remote and can experience harsh climatic conditions

UK's Urban areas

- Areas such as Manchester, Glasgow and Sheffield grew because there was a development of heavy industries and concentration of population near supplies of coal and raw materials such as iron ore in the 18th C
- London developed because of its position as the capital and therefore becoming a financial centre
- Birmingham grew mainly as a centre of industrial innovation
- UK's important trading position explains growth of ports such as London, Liverpool and Bristol.

Change?

- General drift towards Southeast England and London
- Since 1997, annual inward migration to the UK has been greater than outward
- Movement from urban to rural areas



The population of the UK and its major cities, 2015

1. Location and importance

Location: South East of England in the county of Hampshire, mainly located on Portsea Island, 20 miles from Southampton, 70 miles from London, 14 Wards

What makes Portsmouth a major UK city?	International importance in wider world
<p>Culture: Portsmouth FC won FA cup 2x and promoted to league one.</p> <p>Industry: Marine & Maritime industries (Royal Navy) located here over 800 years, employs 11,000 people. Aerospace industry: companies like Airbus and BAE systems build satellites for NASA. Over 70% of all UK bananas come through Portsmouth docks.</p> <p>Transport: One of the only cities in UK to have own motorway, M275, which goes to the CBD and rest of UK.</p>	<p>Tourism: Has its own international ferry port which sees 5-star cruise liners coming in from around the world. It attracts tourists: Spinnaker Tower, HMS victory.</p> <p>Education: The university attracts students from all over the world, Portsmouth University ranked in top 100 modern universities in world in 2015, 23,000 students attend Portsmouth University.</p> <p>Industry: There has been a change from dependence on traditional industry like shipbuilding to the development of global industries such as a financial service, defence, aerospace and technology. The European HQ for IBM is based in Portsmouth.</p>

3. Urban growth creates opportunities

Social and economic	Environmental
<p>Cultural mix: International Kite Festival on Southsea Common.</p> <p>Social exclusion of different communities</p> <p>Recreation and entertainment: Pyramids and Portsmouth Guildhall offer range of comedy and music entertainment. Hosts infamous Victorious music festival.</p> <p>Great South Run - 25 years ongoing, 10 mile running event. Gunwharf Quays and Cascades shopping centre have many recreational facilities including</p>	<p>Employment and industry: 1/10 of people in Portsmouth are employed in the dockyard, which links to Portsmouth's biggest industry – defence. Portsmouth won a share of the contract to building 2 new aircraft carriers for Royal Navy - £100 million contract to build parts of Queen Elizabeth ships. Airbus makes payloads for satellites. IBM have HQ there.</p> <p>Unskilled people are unable to access highly specialised jobs</p> <p>Integrated Transport System: Park and Ride service offers commuters a quick and easy way into Portsmouth, runs every 12 minutes at peak times and is conveniently located on M275 entrance to city, also has stops at tourist locations Solent Go app makes it easier for people to travel around transport, moving between trains, buses, hovercraft systems and ferries.</p> <p>Urban Greening: Horsea Island has been designated as a new park area, 50,000 trees planted as well as cycleways and paths Southsea Common and Victoria Park are other vast open green spaces near the hustle of the high streets to offer some calm</p>

5. Social Inequality (least and most deprived wards)

Least deprived: Drayton & Farlington	Most deprived: Charles Dickens	Why has Charles Dickens experienced social deprivation?
<ul style="list-style-type: none"> Age structure: 45-59 years Very bad health: 1% People in social housing: 1.9% Unemployed: 2% House prices: £700,000 Life expectancy: 83 years Crime: 10 crimes in Feb 2022 	<ul style="list-style-type: none"> Age structure: 30-34 years Very bad health: 2% People in social housing: 51% Unemployed: 7% House prices: £200,000 Life expectancy: 73 years Crime: 84 crimes in Feb 22 	<ol style="list-style-type: none"> Because of lack of investment. Many people living in Charles Dickens were working in the docks old industry. However, the docks and old industries closed (deindustrialisation) so these people lost their jobs. Unemployment meant people had no money to spend. This led to decline in services in the area which has resulted in social deprivation.

Causes

- Migration and dense population → pressure on services, inability to keep up with demands (and language education)
- Unemployment and poor education → high crime rates

6. New Housing for Portsmouth

Advantages for greenfield site housing	Advantages for brownfield site housing
<ul style="list-style-type: none"> New sites do not need clearing so can be cheaper to prepare, No restrictions of existing road network, Land cheaper on outskirts so plots can be larger Pleasant countryside environment may appeal to potential homeowners, More space for gardens Shops and business parks on outskirts provide local facilities 	<ul style="list-style-type: none"> Easier to get planning permission as councils want sites to be used, sites are not left derelict Roads already exist, cuts commuting Utilities such as water and electricity are already provided, Near to facilities in town centres e.g. shops, entertainment and work

2. The Impact of Migration

- Internal (within the UK) migration
 - International net migration
 - Natural Increase
- Portsmouth's population has grown by 10% since 2002
 - 16% (in 2011) migrants, mainly from Asia and Western Europe
 - Over 14,000 migrants from elsewhere in UK in 2018

Positive	Negative
<ul style="list-style-type: none"> Migrants work in the local industries contributing to the economy through tax. Migrants create a hard-working motivated workforce. Migrants improve the level of skill, where there are shortages e.g. in the high tech industries. The mainly young migrants help to balance the aging population. Portsmouth has become more ethnically diverse e.g., new festivals such as Caribbean fusion and Kite festival. 	<ul style="list-style-type: none"> Different races and ethnicities cause a challenge of integration into the wider community 100 languages are spoken, there is a need to provide education services Growing population and increase in the number of children due to migration puts pressure on services Many migrants arrive on their own requiring single occupancy dwellings – pressure on housing. Has become the most densely populated city in the UK, lack of available space so causes urban sprawl into greenfield sites on the rural urban fringe.

4. Urban growth creates environmental challenges

- Portsmouth has been labelled as one of the worst cities for air pollution due to there being only three routes into the city: M27, Eastern Road and the A3. No room for new roads and lots of traffic congestion.
- Portsmouth has one of the lowest recycling rates in the country
- Urban sprawl has spread northwards creating pressure on South Downs National Park and greenfield sites.

4. Creating a clean environment

Waste Disposal	Atmospheric Pollution
<ul style="list-style-type: none"> Portsmouth has one of the lowest recycling rates in the UK – to try to solve this the council have introduced rubbish bins that are ¼ of the size in order to encourage more household recycling. 6% target rise in recycling with food waste collectors funded by city council. 10 new recycling banks have also been created, and once the scheme is fully in place, over 5,000 tonnes of food waste will be recycled each year. 	<ul style="list-style-type: none"> Portsmouth CAZ (clean air zone) has designated certain areas, such as around the University, Gunwharf Quays and the dockyards, where older more polluting vehicles will be charged when travelling through them. Cars/Taxis will be charged £10/day and buses and coaches £50/day. This will encourage cleaner transport. Residents who want to try a new and environmentally friendly way to travel hire a Voi rental e-scooter Government funding has contributed to 34 new zero-emission electric buses in Hampshire.

Changes affecting Portsmouth

- Population growing fast.
- UK's most densely populated city
- Population is becoming more ethnically diverse.
- It's network of motorway, road, rail and ferries has made it more accessible.
- There has been an increase in population aged between 15-29.

6. Why is Urban Sprawl taking place?

- It is an Island city so has nowhere else to expand
 - Most densely populated city in the UK so pressure on housing (designated green spaces cannot be built on)
 - Population (migrant) need housing (single occupancy)
- Where is Urban Sprawl taking place?**
- Portsmouth is spreading into the Rural-urban fringe – areas such as Waterlooville grown rapidly
 - Commuter villages such as Denmead (South Downs)

DENMEAD

- * 80 home estates, 450 new homes planned South
 - * Doubled in size in 30 years
 - * 17 acres greenfield lost, fewer open spaces
- Reducing negative impacts:
- * Bus stop within 400 yards and cycle lanes to reduce congestion and air pollution
 - * 3 play areas in the park to improve sense of community and 20 mph limit to reduce accidents

7. Gunwharf Quays Regeneration

What was Gunwharf like before?	Why did the area need regeneration?	How has it been regenerated?	How successful has regeneration been?
<ul style="list-style-type: none"> Was first main ordnance yard for the Royal Navy, established in late 17th C HMS Vernon was centre for training of the art of torpedoes Military base for storage of weaponry and ammunition 	<ul style="list-style-type: none"> Area faced deindustrialisation (shipbuilding & navy decline) leading to unemployment and low QoL in Charles Dickens HMS Vernon navy base closed in 1986 meaning the area was disused and rundown and at risk of becoming derelict. A brownfield site was left, area needed redevelopment 30,000 manufacturing jobs declined to only 10,000, with ships now built mainly in Scotland → unemployment and derelict land. 	<ul style="list-style-type: none"> Spinnaker Tower 90 premium retail outlet stores e.g. Ralph Lauren 30 Bars, restaurants and cafes – located along the waterfront Vue Cinema, Bowlplex, 24h health club, nightclub. Holiday Inn 	<ul style="list-style-type: none"> Generates tourist income, spent on local area Created good environment from brownfield site Provides key worker and affordable housing (No1 Gunwharf is 23% social housing) Mixed land use → used by various groups Provides employment opportunities for locals It protects listed, historic buildings In town → accessible for all in Portsmouth Entertainment and restaurants have caused decline in Southsea Pier area, Odeon cinema in North End and commercial road shops due to competition It has done little to resolve urban problems Gentrification means that locals can no longer afford to live there and are forced out of the area.