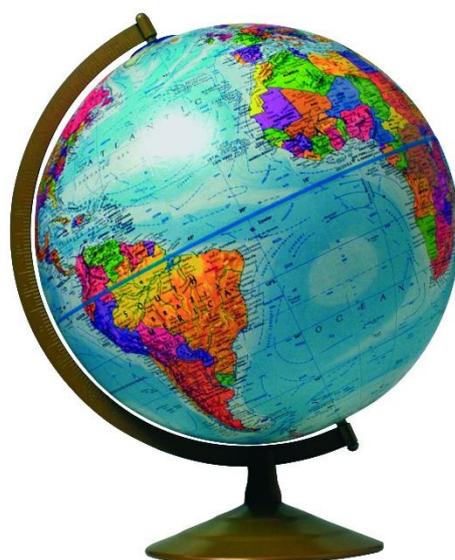


AQA GCSE Geography 2018



Paper 2: Challenges in the human environment – Case study booklet

Paper 2: Challenges in the human environment – Case study booklet

Section A – Urban issues and challenges

1. Rio De Janeiro – Urban growth

Describe, explain and assess a case study of a major city in an LIC or NEE to illustrate:

Describe the location and explain the importance of the city, regionally, nationally and internationally

Describe and explain the causes of growth: natural increase and migration

Explain how urban growth has created opportunities:

- social: access to services – health and education; access to resources – water supply, energy
- economic: how urban industrial areas can be a stimulus for economic development

Explain how urban growth has created challenges:

- managing urban growth – slums, squatter settlements
- providing clean water, sanitation systems and energy
- providing access to services such as health and education
- reducing unemployment and crime
- managing environmental issues – waste disposal, air and water pollution, traffic congestion.

2. Favela Bairro Project - Urban Planning (Example)

Using an example describe and explain how urban planning is improving the quality of life for the urban poor.

3. Bristol- Urban change

Use a case study of a major city in the UK to describe and explain:

- the location and importance of the city in the UK and the wider world
 - the impacts of national and international migration on the growth and character of the city
- how urban change has created opportunities

• social and economic: cultural mix, recreation and entertainment, employment, integrated transport systems

• environmental: urban greening

Describe and explain and assess how urban change has created challenges:

- social and economic: urban deprivation, inequalities in housing, education, health and employment
- environmental: dereliction, building on brownfield and greenfield sites, waste disposal
- the impact of urban sprawl on the rural–urban fringe, and the growth of commuter settlements.

4. The Temple Quarter – urban regeneration (Example)

Using an example of an urban regeneration project to describe, explain and assess :

- the reasons why the area needed regeneration
- the main features of the project.

Section B – The changing economic world

1. **Jamaica - Reducing the gap - tourism (Example)**- Using an example describe and explain how the growth of tourism in an LIC or NEE helps to reduce the development gap.

2. **Nigeria – A Newly Emerging Economy** - Using a case study of a LIC or NEE to:
 - explain the location and importance of the country, regionally and globally
 - describe and explain the wider political, social, cultural and environmental context within which the country is placed
 - outline explain the changing industrial structure of the country, the balance between different sectors of the economy and how manufacturing industry can stimulate economic development.
 - outline the role of transnational corporations (TNCs) in relation to industrial development. Explain the advantages and disadvantages of TNC(s) to the host country
 - describe the changing political and trading relationships with the wider world
 - describe international aid and the types of aid and explain the impacts of aid on the receiving country
 - describe the environmental impacts of economic development
 - describe the effects of economic development on quality of life for the population.

3. **Hanson Cement – modern industrial development in the UK** - Using an example explain how modern industrial development can be more environmentally sustainable

Section C – The challenge of resource management

No case studies or examples needed for this section.

Urban issues and challenges

Case Study

Title	Urban growth in Rio De Janeiro	Specific Locations	Brazil, Rochinha
<p>Where is Rio De Janeiro?</p> <p>Rio is located in South America on Brazil's Atlantic coast. It has grown up around a natural bay called Guanabara Bay.</p>		<p>What is Rio like?</p> <p>Until 1960 Rio was the capital of Brazil – it is now Brasilia. Population: In 2014 6.5 million people lived in the city itself and 12.5 in the surrounding area.</p>	
<p>The importance of Rio:</p> <p>Regionally:</p> <ul style="list-style-type: none"> Main service industries are banking, finance and insurance – this employs many people in Rio Stunning natural scenery attracts tourists from all of the world – providing jobs for many people in Rio 		<p>How and why has Rio De Janeiro grown?</p> <p>Rio has grown rapidly over the last 50 years to become a major industrial, administrative, commercial and tourist centre.</p> <p>These economic activities have attracted migrants from Brazil and other countries causing the population of Rio to rise rapidly. These migrants have contributed to Rio's continuing economic development.</p>	
<p>Nationally:</p> <ul style="list-style-type: none"> Rio is an important industrial centre - produces 5% of Rio's GDP Rio is the cultural capital of Brazil <p>Many people have migrated from other parts of Brazil e.g the Amazon Basin</p>		<p>Migrants have moved to Rio from different places:</p> <ul style="list-style-type: none"> From other countries in South America, such as Argentina and Bolivia Rio's industry attracts skilled workers from the USA and UK 	
<p>Internationally:</p> <ul style="list-style-type: none"> Rio hosted the 2014 World Cup and the 2016 Olympic Games International hub – 5 ports and 3 airports Statue of Christ the Redeemer is one of the seven wonders of the world Rio has a major port – exports coffee, sugar and iron ore Rio is a UNESCO World Heritage site 		<p>The effects of economic growth in Rio</p> <p>The city provides 6% of all employment in Brazil. The city's retail and consumer sector is a major source of employment. Oil has been discovered off the coast and this has encouraged the growth of oil related industries.</p>	
<p>Challenges in Rio</p>	<p>Solutions to challenges:</p>		
<p>Social:</p> <p>Healthcare: In 2013 only 55% of the city had a local family health clinic. Huge inequalities in health across the city eg. Life expectancy in the west of the city 45 years and in the south 80 years. IMR 21/1000 in the west and 6/1000 in the south</p> <p>Education: Education in Brazil is compulsory for children aged 6-14. In Rio only half of children continue their education before the age of 14. Many drop out of school and some get involved in drug trafficking. Reasons for low school enrolment in Rio are: There is a shortage of nearby schools, a lack of money and a need to work, a shortage of teachers and low pay for teachers.</p> <p>Water supply: 12% of Rio's population did not have access to running water in 1998. It is estimated that 37% of water is lost through leaky pipes, fraud and illegal access.</p> <p>Energy: The whole city suffers frequent blackouts due to a shortage of electricity. The growing population and the demands of the forthcoming Olympics will make the situation worse. Many people living in the poorer parts of Rio get their electricity by illegally tapping into the supply which is risky and unsafe</p> <p>Crime: Robbery and violent crime present great challenges in Rio. Murder, kidnapping and carjacking occur regularly. Powerful gangs control drug trafficking in many of the favelas.</p>	<p>Social:</p> <p>Healthcare: In the favela of Santa Marta (13km from the nearest hospital) medical staff took a health kit into people's homes, and were able to detect twenty different diseases and treat them. As a result, infant mortality has decreased and life expectancy has increased</p> <p>Education: The authorities have tried to improve access to education by: encouraging local people to volunteer to help in school, giving school grants to poor families to help meet the cost of keeping their children in school and opening a private university in Rocinha favela</p> <p>Water supply: Most of the work has been on improving the quantity or quality of the water in the favelas and in the Olympic Park. Seven new treatment plants were built between 1998 and 2014, and over 300km of pipes were laid. By 2014 95% of the population had a mains water supply</p> <p>Energy: 60km of new power lines installed, building a new nuclear generator and developing the new Simplicio hydro-electric complex which will increase Rio's supply of electricity by 30%</p> <p>Crime: The police have taken steps to control crime: In 2013 Pacifying Police Units were established to reclaim favelas from drug dealers.</p>		

<p>Economic:</p> <p>Unemployment - Brazil's economy was hit by a deep recession in 2015. This increased unemployment. Massive inequalities in income in Rio. In the favelas unemployment rates are over 20% with most people working in the informal economy e.g. street vendors, drivers etc. These workers do not pay taxes and the government receives no money from them. They are also not guaranteed work and it is poorly paid</p>	<p>Unemployment -The Schools of Tomorrow programme aims to improve education for young people in the poor and violent areas of the city – they are given practical skills based courses. Free childcare is provided for teenage parents to allow them to return to education.</p>
<p>Environmental:</p> <p>Air pollution and traffic congestion – Air pollution is estimated to cause 5000 deaths in Rio each year. The city is often covered in brown smog. This is because of heavy traffic and congestion on roads which causes a buildup of exhaust fumes. Rio is the most congested city in South America. This increases stress and pollution levels and wastes time for businesses and commuters. High crime levels mean that most people travel by car and because of steep mountains around the city roads can only be built on coastal lowland – main routes become congested</p> <p>Water pollution – Guanabara Bay is highly polluted, causing a major threat to wildlife. There is a danger that pollution could affect Copacabana Beach which would damage tourism and the local economy. Commercial fishing has reduced by 90% in the last 20 years. Rivers are polluted by run off from open sewers in the favelas (200 tonnes of raw sewage into the bay each day) and 50 tonnes of industrial waste enters the bay each day</p> <p>Waste pollution – The worst waste problems are in the favelas. Many of the favelas are built on steep slopes and have few proper roads, making access difficult for waste collection lorries. Most waste is therefore dumped and pollutes the water system. This causes diseases like cholera and encourages rats</p>	<p>Air pollution and traffic congestion Improvements have been aimed at reducing traffic congestion and improving air quality:</p> <ul style="list-style-type: none"> • New toll roads into city - centre to reduce congestion • Making coast roads one way during rush hours to improve traffic flow • Expansion of the metro system.  <p>Water pollution -Overseas aid has been used to reduce the amount of waste being released into the bay:</p> <ul style="list-style-type: none"> • 12 new sewage works have been built since 2004 costing US\$68 million • 5km of new sewage pipes have been installed around badly polluted areas. • Ships are fined for discharging fuel into the bay illegally. <p>Waste pollution - A power plant has been set up near the University of Rio using methane gas from rotting rubbish. It consumes 30 tonnes of rubbish a day and produces enough electricity for 1000 homes.</p>
<p><u>The challenge of squatter settlements:</u></p> <ul style="list-style-type: none"> • Construction – poorly constructed because they were built illegally with basic material such as plastic sheets. Heavy rain on the steep slopes has caused landslides. 2010 – 224 people killed in the favelas • Services – 12% no running water, 30% no electricity, sewers are open drains and 50% have no sewage connections • Crime – murder rate of 20/1000 in favelas and drug gangs dominate many favelas • Health – Waste cannot be disposed of leading to disease spreading IMR as high as 50/1000 	
<p><u>How are favelas being improved? THE FAVELA BAIRRO PROJECT</u></p> <p>This is a site and service scheme, where the local authority provides land and services for residents to build homes e.g. Complexo do Alemão in Rio's north zone:</p> <ul style="list-style-type: none"> • Hillsides secured to prevent landslides • Building of new health, education and leisure facilities • Access to credit to allow people to buy materials to improve homes • 100% mortgages available <p><u>Success or failure:</u></p> <ul style="list-style-type: none"> • Residents lack the skills and resources to make repairs • More training is needed to improve literacy and unemployment • Rent has increased meaning that the poorest inhabitants are worse off. 	

Title	Urban change in Bristol	Specific Locations	Bristol, Filwood, Stoke Bishop, Temple Quarter
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<p>Where is Bristol?</p> <p>Bristol is located in the south-west of England, approximately 5km to the west of Swindon.</p> 	<p>What is Bristol like?</p> <p>Bristol has a population of 440,500 and is expected to reach half a million by 2029. It is the largest city in the south west.</p>
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<p>The importance of Rio</p> <p>Nationally:</p> <ul style="list-style-type: none"> Two universities – attracts students from around the UK Two cathedrals – Bristol and Clifton Located on the M4 corridor with good road and rail links to London <p>Internationally:</p> <ul style="list-style-type: none"> The largest concentration of silicon chip manufacture outside California Around 700,000 cars from Japan, Germany and Korea are imported to Bristol's docks each year Bristol airports links the city to major European centres <p>The UK's eighth most popular city for foreign visitors</p>	<p>The impacts of national and international migration:</p> <p>In recent years' migration from abroad has accounted for about half of Bristol's population growth e.g. from EU countries such as Poland. Migrant workers are employed in a variety of sectors e.g retail, health and manufacturing.</p> <table border="1"> <thead> <tr> <th>Positive impacts</th> <th>Negative impacts</th> </tr> </thead> <tbody> <tr> <td> <ul style="list-style-type: none"> Mainly young migrants help to balance and ageing population Hard working, motivated workforce Contributing to both the local and national economy </td> <td> <ul style="list-style-type: none"> Pressures on housing and employment The need to provide education for children whose first language is not English Challenge of integration within community </td> </tr> </tbody> </table>	Positive impacts	Negative impacts	<ul style="list-style-type: none"> Mainly young migrants help to balance and ageing population Hard working, motivated workforce Contributing to both the local and national economy 	<ul style="list-style-type: none"> Pressures on housing and employment The need to provide education for children whose first language is not English Challenge of integration within community
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<p>What changes are affecting Bristol?</p> <ul style="list-style-type: none"> Bristol's population is growing rapidly The network of motorways, road, rail and air connections has made it more accessible There are more people under the age of 16 than over 65 It's population is becoming more ethnically diverse 	
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<p>How can urban change create social opportunities in Bristol?</p> <ul style="list-style-type: none"> Youthful population means there is a range of bars and nightclubs – The Colstan Hall has concerts and entertainment by major names in rock, pop and jazz Sport – Bristol has two professional soccer teams – City and Rovers and a rugby union team - all teams are developing their stadiums to provide a range of leisure and conference facilities and accommodation Shopping – The city centre had become outdated and people had begun shopping in the out of town retail park at Cribbs Causeway. Developments to encourage people to shop in the CBD include; pedestrianising the area, providing a more attractive shopping environment (new street furniture floral displays and landscaping and improving public transport into the centre eg park and ride 	<p>How can urban change create economic opportunities in Bristol?</p> <ul style="list-style-type: none"> The major change in Bristol's industry has been the increased number of people working in high-tech companies. There are 50 micro-electronic and silicon design businesses in Bristol. The following factors attract high-tech businesses to Bristol: a government grant of £100 million to become a super connected city with high broadband speeds, advanced research at the universities and an educated and skilled workforce. Example – Aardman Animations - based in Bristol. The studio has been well known for its films using stop-motion clay animation techniques e.g. Wallace and Gromit – its films have won an Oscar and many other awards 	<p>How can urban change create environmental opportunities in Bristol?</p> <ul style="list-style-type: none"> 2015 Bristol awarded European Green Capital with a plan to achieve the following by 2020, transport improvements, improved energy efficiency and development of renewable energy Bristol plans to develop an integrated transport system linking different forms of public transport within the city. The aim is to get people to travel using public transport instead of cars – reducing congestion and air pollution. The Rapid Transit Network consists of three bus routes from Temple Meads train station with the city's park and ride sites. Urban greening – 1/3 of Bristol's is open space and more than 90% of people love within 350km of parkland and waterways. Bristol has 8 nature reserves and 300 parks. Queen Square was once a dual carriage way but is now transformed into a cycle way with open space. Green initiatives include: 30% of
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city to be covered in trees.

How has urban change in Bristol created challenges?

Social and economic challenges:

- **Urban deprivation** – Filwood (south of Bristol) is in the top 10 % of the most socially deprived areas in the country. In 2010 a survey by Bristol City Council revealed that more than a third of people living in Filwood and over half the children were in very low-income households.
- **Inequalities in housing** – Housing in Filwood is split equally between owner occupied and those rented from the city council. Compared to Stoke Bishop in the north of Bristol where 81% of the housing is owner occupied. Most of the council houses in Filwood were built in the 1930s and are poorly insulated.
- **Inequalities in education** - In Filwood in 2013 only 36% of students got top grades at GCSE, including English and Maths compared to 94% in Stoke Bishop
- **Inequalities in health** – In Filwood death rates from cancer are higher than average and life expectancy is 78 years compared to 83 years in Stoke Bishop
- **Inequalities in employment** – Only 3% of people in Stoke Bishop are unemployed compared to 1/3 of people aged 16-24 in Filwood.



Environmental challenges: (solutions in red)

- **Dereliction** – Changes in the economy and industry in Bristol have led to many industrial buildings that are no longer being used becoming derelict. This is mainly in the inner city. When the port function moved downstream from the city many warehouses were abandoned and fell into decay. Stokes Croft in Bristol's inner city became notorious for its derelict housing and abandoned properties and many empty houses have been taken over by squatters and the area has suffered from anti-social behavior. **Bristol City Council has received lottery grants to help improve the poor economic activity and urban decay in the area. Artists wanted to improve the areas through public action and community art.**
- **Urban sprawl** – Urban sprawl has extended particularly to the north-west of the city. The new town of Bradley Stoke has extended the city to the north. **Between 2006 and 2013 only 6% of new housing developments were on greenfield land and by 2026 over 30,000 new homes are planned on brownfield sites. The green belt was set up to prevent urban sprawl on the rural-urban fringe and the merging of the cities Bath and Bristol. Towns to the north and south of the city, such as Clevedon has expanded to become commuter settlements so that people are able to travel from surrounding areas to work in the city.**
- **Waste disposal** – The city produces half a million tonnes of waste per year. It is among the worst cities in the country in terms of the amount of food waste it creates. **A range of strategies have been adopted to cope with the problem of waste disposal e.g. reducing the amount of waste that has to be sent to landfill and reducing the amount of waste generated per household by 15%. Bristol's population has increased by 9% since 2000 and the amount of household waste has reduced by 18% in the same period.**
- **Atmospheric pollution** – Vehicle emissions are the main cause of air pollution in the city. Bristol is the most congested city in England and the main bus routes are often the most polluted. **An estimated 200 people die in the city each year due to air pollution. Plans to reduce air quality include reducing speeds on motorways and residential areas and a smartphone app with information about public transport.**

The Temple Quarter Regeneration

Reasons why the area needed regeneration:

The Temple Quarter was very rundown. It gave a bad first impression to visitors, as it was the first part of the city seen by anyone driving from Wells or Bath. The Temple Quarter was developed as an industrial areas in 18th Century. The land was mainly disused and in a state of dereliction.



The main features of the project:

- New bridge built across the River Avon to the site of the former diesel depot – This gives access to the New Bristol Arena (to be used for sporting events with up to 12,000 spectators)
- Improved access in and around Bristol – Improvements to Temple Meads station to encourage more people to travel by train
- Improved road layout with links to the rapid transport network and the Bristol-Bath cycle network
- Enterprise zone status – 240,000m² of either new or refurbished buildings, creating offices, homes and shops. The target is to create 4000 jobs by 2020 and 17000 by 2037 e.g Brunel's engine shed - A £1.7 million innovation centre is being created – home to high-tech, creative and low carbon sector companies.

Title	Reducing the development gap – Tourism in Jamaica	Specific Locations	Jamaica, Kingston, West Indies
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Where is Jamaica?

Jamaica is located in the Caribbean to the south of Cuba. It is one of the largest islands in the west indies



What is the state of Jamaica’s economy?

Its population is 2.7 million. Its economy is based on a range of minerals (such as Bauxite and oil), agricultural products (sugar and rum) and some manufacturing. It has suffered from slow growth, debt and high unemployment.

Tourist attractions in Jamaica

Baeutiful beaches, a warm sunny climate, rich cultural heritage, watersports, deep sea fishing, caves, golf courses and national parks

How has tourism contributed to Jamaica’s development?

<p><u>Economy</u></p> <p>In 2014 tourism contributed to 24% of Jamaica’s GDP</p> <p>The annual 1.1. million cruise passengers only spend an average US \$70 per day compared wit \$120 per day spent by other visitors</p> <p>Income from tourism is US\$2 billion each year. Taxes paid to government contribute further to the development of the country.</p>	<p><u>Employment</u></p> <p>Community and eco-tourism is expanding in more isolated regions with people running small-scale guest houses or acting as guides</p> <p>Tourism in Jamaica provides 200,000 people with jobs in the tourist industry</p>	<p><u>Infrastructure</u></p> <p>Roads and airports have been slower to develop meaning that some parts of the island are isolated.</p> <p>New port and cruise lines facilities have been built on the island.</p>
<p><u>Quality of life</u></p> <p>In the northern tourist areas, wealthy Jamaicans live in high quality housing with a high standard of living. These areas have benefited from tourism</p>	<p><u>The environment</u></p> <p>Tourism has caused environmental problems such as path erosion, excessive waste and harmful emissions</p>	

Title	Hanson Cement - How can a modern industrial development be more sustainable	Specific Locations	Ketton, Stamford, Rutland, A1 motorway
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Where is Hanson Cement?

Hanson Cement is located in Lincolnshire. It was sited in this location as there is a good supply of limestone, the mineral needed to make cement. The quarry and processing plant supplies to major builders around the country, and supplied most of the cement used for the 2010 Olympics. It is located next to A1 and 5km to the west of Stamford



of

What are the impacts of Hanson Cement

- Hanson cement provides 350 jobs for locals leading to a positive multiplier effect.
- However some people are not too happy with Castle Cement. They say the plant is **ugly**, that it creates a lot of **noise** from blasting and the **big lorries** that move around the area. Some environmentalists are worried about the effect the noise and **destruction** of grassed areas will have on **animal habitats**. Tourists **don't like the look** of the cement plant and quarry, they say it **ruins** the Lincolnshire countryside. Finally many locals are **angry about the dust created** by the blasting which takes place to mine the limestone.
- Castle Cement is clearly seen by some as a good thing for the local area, and for others as a bad thing



How is Hanson cement trying to be more sustainable?

- Hanson cement burns recycled waste like paper, cardboard and plastics so coal does not have to be used, this is good because less fossil fuels are used
- One of the largest solar farms in the UK has been created meaning that less fossil fuels are used and carbon emissions are reduced.
- Blasting is now only allowed to take place between 11am and 2pm, and is not allowed to take place at weekends or bank holidays, therefore having less of an impact on people's quality of life
- Replanting of trees takes place on disused quarry area
- Filters in chimneys trap pollutants which may be released when burning for power takes place
- Hanson Cement sends workers to clean cars in the nearby villages; Ketton and Collyweston



Title	Nigeria: A Newly Emerging Economy	Specific Locations	Africa, Lagos, Abuja,
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Where is Nigeria?

Nigeria is located in north-west Africa. Bordering countries include Benin, Chad, Niger and Cameroon. It is on the Atlantic Coast. It is almost due south of the UK.



Nigeria's global importance

- In 2014 Nigeria became the world's 21st largest economy.
- Nigeria had the world's highest average GDP growth for 2010-15
- Nigeria supplies 2.7% of the world's oil
- Nigeria has also developed a very diverse economy which now includes financial services, telecommunications and the media
- Nigeria is the fifth largest contributor to UN peacekeeping missions around the world

Nigeria's regional importance (in Africa)

- Nigeria has one of the fastest growing economies in Africa. In 2014 it had the highest GDP in the continent and the third largest manufacturing sector
- It is the most populated country in Africa – with a population of 182 million
- Nigeria has the highest farm output in Africa – 70% of the population are employed in agriculture.

Nigeria's trading relationships:

- Nigeria is a major trading nation. Its main exports are crude and refined petroleum, natural gas, rubber, cocoa and cotton. Almost 50% of all exports for to the EU.
- One of the fastest growing imports is telephones. Imported from China, these are in demand from Nigeria's growing population and emerging middle class, Nigeria ranks 7th in the world for the number of mobile phones used.
- India is Nigeria's biggest customer for crude oil. Between 2013 and 2014 exports of crude oil have increased by 40%

The different aspects of Nigeria

Political context

Nigeria became independent from the UK in 1960. However bitter power struggles resulted in a series of dictatorships and a civil war between 1967 and 1970. Lack of political stability affected Nigeria's development and led to widespread corruption. It is only since 1999 that the country has had a stable government. Several countries are now starting to invest in Nigeria e.g. American companies such as General Electric are investing in new power plants

Social context

Nigeria is a multi-ethnic, multi faith country. Ethnic groups in Nigeria include the Yoruba (21%) Hausa and the Fulani (29%) and Igbo (18%). Christianity and Islam are practiced widely. This social diversity is one of Nigeria's great strength but is also causes conflict. Economic inequality between the north and south of Nigeria has created new religious and ethnic tensions, with the rise of the Islamic Fundamentalist group Boko Haram – this has created an unstable situation in Nigeria and has had a negative impact on the economy, with a reduction in investment from abroad and a rise in unemployment. There are huge variations in levels of wealth e.g. GDP is highest in the south (US\$3617) and lowest in the south east (US\$292)

Cultural context

- With such a diverse population Nigeria enjoys a rich and varied culture:
- Nigerian music is enjoyed across the continent e.g. Fela Kuti
- Nigerian cinema (known as Nollywood is the second largest film industry in the world
- In sport, the Nigerian football team has won the African Cup of Nations three times, most recently in 2013.



Environmental context

- Nigeria's natural environments form a series of bands across the country. This reflects the decreasing rainfall from north to south. To the north of Nigeria is the Sahel and the Sahara.
- Savanna can be found in the upland region of Jos Plateau (central Nigeria)
- In Southern Nigeria – high temperatures and high annual rainfall (similar to rainforest climate)



Nigeria's changing industrial structure

Since 1999 there have been major changes in Nigeria's industrial structure:

- Employment in agriculture has fallen from 70% to 33% in 2012 – this is because farm machinery is used more and because of better pay and conditions in other sectors of the economy
- Industrialisation and economic growth (secondary sector) under a stable government has increased employment in oil production, manufacturing of products such as construction, motor manufacturing and sugar refining. The % of people employed in manufacturing has increased from 20% in 1999 to 33% in 2012
- The growth of the tertiary sector – communications, retail and finance. This has increased from 10% to 33%.

These changes mean that Nigeria now has a balanced economy – an even balance between the different sectors.

How is manufacturing affecting economic development?

- Regular paid work gives people a more secure income and provides a larger home market for purchasing products such as cars and electrical appliances
- As industries grow more people are employed, and revenue from taxes increases
- A thriving industrial sector attracts foreign investment which stimulates further economic growth

The role of TNCs in Nigeria:

There are about 40 TNC in Nigeria, majority have headquarters in the UK, USA or Europe. They include things like Unilever (food and homecare) ranging to KFC. **Shell oil** is one of the world's largest oil companies. Since oil was discovered in the Niger Delta in 1958 Shell's operations have been controversial.



Advantages	Disadvantages
Making major contributions in taxes and export revenue Providing employment for 65,000 Nigerian workers Giving 91% of Shell contracts to Nigerian companies Supporting the growth of Nigeria's energy sector	Oil spills have caused water pollution and soil degradation, reducing agricultural production and fishing yields Frequent oil flares send toxic fumes into the air Militant groups disrupt oil supply in the delta.

The impacts of international aid in Nigeria

Nigeria receives about 4% of aid given to African countries. In 2013 aid represented 0.5% of Nigeria's GNI – nearly US\$5000 million. Most came from individual countries such as the UK and USA, and some from international organisations such as the World Bank. Charities and NGOs have also supported aid projects in Nigeria.

Examples of aid include; Aid from the USA helps to educate people and protect people against the spread of HIV and AIDS, The NGO Nets for Life provides education on Malaria prevention and distributes anti-mosquito nets to households and in 2014 the World Bank approved US\$500 million to fund development projects and provide long term loans to businesses.

What prevents aid from being used effectively – Corruption by the government and by individuals is a major factor in the loss of aid and donors may have political influence over what happens to the aid

The environmental impacts of economic development in Nigeria

Nigeria has done this through activities like farming, oil extraction and manufacturing things in factories.

While it's great that Nigeria has done so well, their rapid economic development has created negative environmental impacts:

- In Lagos many harmful pollutants go directly into open drains and water channels – these are harmful to people and damage ecosystems downstream
- 70-80% of Nigeria's forests have been destroyed through logging, urban expansion and industrial development. Many species have disappeared e.g. cheetahs and giraffes and 500 species of plant.
- Many oil spills in the Niger Delta have had disastrous impacts on freshwater and marine ecosystems – Bodo oil spills (2008)
- Commercial farming and inappropriate practices have led to land degradation. There is water pollution due to chemicals, soil erosion and silting of river channels.

How has economic development affected the quality of life for people in Nigeria?

- Quality of life is commonly measured using the UNs HDI. Nigeria's HDI has been increasing steadily from 2005. It has risen from 0.465 in 2005 to 0.505 in 2013.
- Life expectancy has risen from 46 in 1990 to 52 in 2013
- Mobile phone subscriptions from 0 in 1990 to 73 in 2013
- Mortality rates have decreased from 213/1000 in 1990 to 117/1000 in 2013
- Despite these clear improvements many people are still poor, Limited access to services such as safe water and sanitation is still a problem e.g. % of people with access to sanitation facilities dropped from 37% in 1990 to 28% in 2013.
- Corruption has been a major factor and the oil wealth was not used to diversify the economy, Now the price of oil has fallen and technology is leading to the developments of shale oil elsewhere. Therefore, Nigeria's over dependence on oil could be a problem in the future.

