

AQA GCSE Geography



Case study guide and revision materials.

Paper 1: Living with the physical environment (1 hour 30mins)

Tuesday 21st May, PM

Paper 2: Challenges in the human environment (1 hour 30mins)

Wednesday 5th June, PM

Paper 3: Geographical applications and skills (1 hour 15mins)

Thursday 13th June, AM

A case study is an example of a real place or event.

Paper 1: Living with the physical environment

A. The challenge of natural hazards

Named examples to show how the effects and responses to a tectonic hazard vary between two areas of contrasting wealth (HIC & LIC).

| Background | Place: Chile, South America Date: 27 th February 2010 Size: 8.8 Richter scale Wealth: HIC | Place: Nepal, Asia Date: 25 th April 2015 Size: 8.8 Richter scale Wealth: LIC |
|---------------------|--|--|
| Primary effects | <ul style="list-style-type: none"> • 500 people killed • 12,000 injured • 220,000 homes damaged • Port and airport badly damaged • lost communications, water and electric supplies • Cost estimated at US\$30 billion | <ul style="list-style-type: none"> • 9000 people killed • 20,000 injured • 3 million people left homeless • 7000 schools destroyed and hospitals overwhelmed • Communications, water, sanitation and electric supplies affected • Cost estimated at US\$5 billion |
| Secondary effects | <ul style="list-style-type: none"> • Tsunamis, fires and mudslides • 1500km of road damaged by mudslides • Coastal towns devastated by tsunami waves • A fire in a chemical plant near Santiago | <ul style="list-style-type: none"> • Landslides and avalanches blocked roads. • Avalanches on Mount Everest killed 19 people. • A landslide blocked the Kali Gandaki River causing evacuation in case of flooding. |
| Immediate responses | <ul style="list-style-type: none"> • Emergency services acted quickly. • Temporary repairs made to route 5 highway within 24 hours, enabling aid to reach communities in need. • Power & water restored to 90% of homes within 10 days. • A national appeal raised US\$60 million. | <ul style="list-style-type: none"> • Search and rescue teams, water and medical support arrive from overseas. • Financial aid pledged from many countries. • Field hospitals set up to support overcrowded main hospitals. • Helicopters used to rescue people caught in avalanches. |
| Long-term responses | <ul style="list-style-type: none"> • Government launched a housing reconstruction plan- 200,000 households. • Chile's strong economy, based on copper exports, was able to rebuild. • A long-term building plan was put in place, to repair damaged buildings and infrastructure. | <ul style="list-style-type: none"> • Roads repaired and landslides cleared. • Thousands of homeless people to be rehoused. • Damaged homes and schools repaired • Stricter controls on building codes. • Nepal hosted an international conference to seek technical and financial support from other countries. |

0 1 . 9 Choose **either** an earthquake **or** a volcanic eruption.

Assess the extent to which primary effects are more significant than secondary effects.

Use **Figure 5a or 5b** and an example you have studied.

[9 marks]
[+ 3 SPaG marks]


Chosen tectonic hazard: _____

Use a named example of a tropical storm to show its effects and responses.

| | |
|----------------------------|--|
| Background | November 2015, 'Super' Typhoon Haiyan- a category 5 storm hit the Philippines |
| Primary effects | Strong winds, heavy rain and storm surge. 6300 people killed, 600,000 people displaced, 40,000 homes damaged. 90% of Tacloban city destroyed. Tacloban airport damaged. Widespread flooding. |
| Secondary effects | 14 million people affected, many homeless. Flooding caused landslides and blocked roads. Power supplies cut off for a month. Shortages of water, food and shelter. Outbreaks of disease. Looting and violence broke out in Tacloban. |
| Immediate responses | International governments and charities provided aid- food, water, shelters & first aid kits. UK government sent shelter kits. Field hospitals set up to help the injured. Over 1200 evacuation centres set up to help the homeless. |
| Long-term responses | The UN and countries donated financial aid, supplies and medical support. Rebuilding of roads, bridges and airport facilities. Cyclone shelters built to accommodate people evacuated from coastal areas. Thousands of homes have been built away from areas at risk of flooding. Rice farming and fishing quickly re-established. |

1.10 'Long-term responses are more effective at reducing the effects of tropical storms than immediate responses.' To what extent do you agree with this statement?

An example of a recent extreme weather event in the UK to illustrate: causes, social, economic and environmental impacts and how management strategies can reduce risk.



Natural Hazards- UK extreme weather

"Beast from the East"

February 28th to March 2nd 2018. Beast from the East, Polar Vortex & Storm Emma



Background-

- Beast from the East meets Storm Emma.
- March 2018
- Polar Vortex, Low pressure from Siberia.
- Temperatures dropped to -10°C
- Wind Chill of -22°C
- Wind speeds exceeding 70mph
- 10 killed across the country
- Hundreds trapped on roads and motorways.
- Gas supplies running low.

Primary effects
Impacts caused directly by the storm

- 15-20cm of snow fell over the course of three days.
- Storm Emma brings winds in excess of 70mph.
- Snow drifts in excess of 7m in rural locations.
- Waves batter coastlines across the country.
- Hundreds stranded for up to 36hrs on the M80 Motorway in Scotland and A roads in Devon.

Secondary effects
Impacts caused after the storm

- UK issued with a gas 'Deficit' warning.
- NHS cancelled non-urgent operations and clinics.
- Trains stranded on tracks overnight in Dorset.
- Thousands of homes left without power.
- Schools across the country closed for up to 3 days.
- Flights cancelled.

Responses
Help immediately during the storm-

- Armed forces deployed to rescue drivers and drive NHS workers to work.
- Greggs delivery driver hands out cakes to stranded drivers.
- Community centers open for homeless people to shelter from the conditions.
- Taxi firms offering to shop and fetch medicine/ supplies for elderly people.
- Met office issues 'Red' weather warning to stop people from travelling.
- Snow ploughs, gritters and tractors go out in force to clear snow and roads.
- Government asks businesses to reduce gas usage over the coming days.
- Red Cross issues blankets/camp beds to people stranded at Glasgow Airport.

0 1 . 4 'The weather of the UK is becoming more extreme.'

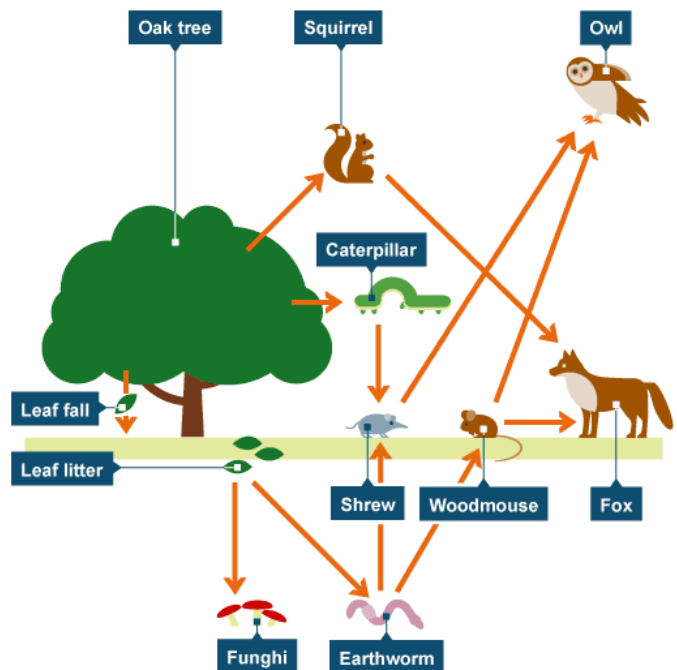
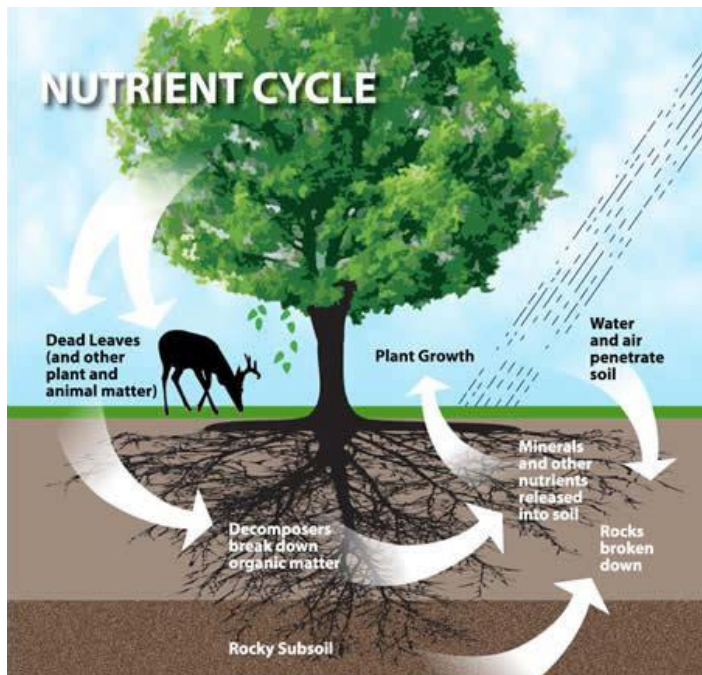
Use evidence to support this statement.

[6 marks]

B. The living world

An example of a small scale UK ecosystem to illustrate the concept of interrelationships within a natural system.

Small scale local ecosystem: Sydenham Hill woods (deciduous trees)



What causes change to ecosystems?

Changes due to human activity: cutting down of trees, erosion and litter from people using the wood, fire.

Natural changes: extreme weather events, diseases.

A case study of a tropical rainforest.

| | |
|---------------------------------|--|
| Location | Amazon rainforest, Brazil, South America |
| Causes of deforestation | <p>Commercial logging- clear felling, large areas of forest are cut down and the wood is sold. Roads are cut into the forest to gain access. Mineral extraction- Rainforest has been cleared for mining and road construction. Gold, copper, tin, bauxite, drilling for oil and gas.</p> <p>Commercial farming- Over 1 million people were given free land by the Brazilian government. Exports- coffee, sugar cane, soybeans, rice, corn.</p> <p>Cattle ranching- Brazil is the biggest exporter of beef. Large areas of rainforest are cut down and grass is grown to rear cattle.</p> |
| Impacts of deforestation | <p>Soil erosion- Deforestation means the can easily become loose and erode away. The land becomes infertile. Loss of biodiversity- Deforestation destroys the ecosystem and the many habitats that exist on the ground and in the trees. Climate change- Deforestation can have an impact on local and global climates. During photosynthesis trees absorb CO₂ and emit O₂. Economic development- Deforestation can</p> |

| | |
|--|--|
| | help a country like Brazil to develop. Creates jobs, improves infrastructure, cheap energy, companies pay taxes. |
| Strategies for sustainable management | Selective logging and replanting- using elephants and helicopters to remove individual trees. Conservation and education- creation of national parks or nature reserves. These areas can be used for education, scientific research and tourism. Ecotourism- aims to introduce people to the natural world and, to benefit local communities and protect the environment for the future. E.g. Costa Rica. International agreements- The Forest Stewardship Council (FSC) is an international organization that promotes sustainable forestry. |

0 2 . 7 Outline **one** possible environmental impact of deforestation. [2 marks]

0 2 . 8 Suggest **one** way that international co-operation can help make tropical rainforests more sustainable. [2 marks]

A case study of a hot desert.

| | |
|----------------------------------|---|
| Location | Thar desert. Stretches from north west India and into Pakistan. An area of 200,000 km ² |
| Development opportunities | Mineral extraction- valuable reserves of gypsum (making cement), limestone and marble (construction industry), phospherite (fertilizer) Tourism- beautiful landscapes, desert safaris, annual desert festival each winter. Creates employment for locals, boosts the economy. Energy- coal and oil reserves, which could transform the local economy. Wind- Jaisalmer wind park, Solar- ideal conditions. Bhaleri solar power is used in water treatment. Farming- most people are involved in subsistence farming. Grazing animals and growing fruit and vegetables. Commercial farming has grown due to the Indira Ghandi Canal. Can grow cotton, wheat, maize and mustard. |
| Challenges of development | Extreme temperatures- exceeding 50 degrees Celsius, working outside in the day is difficult, high rates of evaporation lead to water shortages, animals and plant have to adapt. Water supply- Demand for water has increased as population has grown. Water is a scarce resource. Water comes from storage ponds, rivers and underground sources. Accessibility- There is a limited road network. Transport is often by camel and public buses. Salinisation- too much irrigation from farming can lead to salinization- a buildup of salt in the soil which makes it infertile. |

0 2 . 9 For a hot desert environment **or** cold environment you have studied, to what extent does that environment provide both opportunities and challenges for development? [9 marks]

Chosen environment:

C. Physical landscapes in the UK

Coastal landscapes

An example of a section of coastline in the UK to identify major landforms of erosion and deposition.
Swanage, South coast, Dorset.

| | |
|--------------------------|--|
| Coastal processes | Landform- a feature of the landscape. Different rock types: Clay and sands (soft), Chalk (hard) & limestone (hard) |
| Erosion | Bays and headlands (different rock types) Chalk stacks, stumps, arches, caves & wave cut platforms. |
| Transportation | Longshore drift moves sediment along the coastline. |
| Deposition | Swanage beach, Studland Bay- lagoons, saltmarshes and sand dunes. |

An example of a coastal management scheme in the UK

| | |
|-------------------------|---|
| Location: | Lyme Regis, South coast, Dorset. |
| Phase 1: 1990-2004 | Hard engineering: new sea wall and promenade constructed. Winter of 2003-2004, £1.4 million spent to stabilise the cliffs. Large concrete nails, drainage pipes and re-profiling. |
| Phase 2: 2005-2007 | Extensive improvements to the sea front costing £22 million. Hard and soft engineering. New sea walls and promenade, beach nourishment, extension of rock armour. |
| Phase 3: Not undertaken | It was decided to leave the coastline west of The Cobb alone. Managed retreat. |
| Phase 4: 2013-2015 | Focused on the coast east of the town. Cost £20 million. Hard engineering. A new 390 metre sea wall, extensive nailing, piling, and drainage to provide cliff stabilisation to protect 480 homes. |

River landscapes

An example of a river valley in the UK to identify its major landforms of erosion and deposition.

| | |
|----------------------|--|
| Location | River Tees, North East England, 128km in length. |
| Upper course | Source is in the Pennine hills. V-shaped valley, gorges, waterfalls and interlocking spurs. High force waterfall formed by two different types of rock. |
| Middle course | U-shaped valley. Meanders and ox-bow lakes (erosion & deposition) Gentle slopes, agricultural land. |
| Lower course | Flat and low lying land. Meander, levees and floodplains (depositional landforms) Mouth is the north seas at Middlesbrough. |

0 4 . 7 Using **Figure 16**, explain the processes involved in the formation of the landforms shown.

[6 marks]

An example of a flood management scheme in the UK.

| | |
|--------------------------|--|
| Location | Banbury, Cotswold hills, about 50km north of Oxford. The town is on the floodplain of the river Cherwell. |
| Previous flooding | 1998- Closure of the town's railway station, shut local roads and caused £12.5 million of damage. 2007- Homes and businesses flooded. |
| Management | In 2012 a new flood defence scheme was completed. An earth embankment was built to create a flood storage area. Two flood control structures to control the rate of flow downstream. Raising the A361 road. A new pumping station, new earth embankments and floodwalls to protect property. |
| Impacts | Cost- £18.5 million, protects 441 houses & 73 businesses, a new Biodiversity Action Plan, quality of lives for local people improved. |

0 4 . 6 Explain the likely economic effects of river flooding on the area shown in **Figure 15**.
[4 marks]

Paper 2: Challenges in the human environment

A. Urban issues and challenges

A case study of a major city in an LIC or NEE.

| | |
|---------------------------------|--|
| Location | Rio de Janeiro is situated on Brazil's Atlantic coast. The cultural capital of Brazil, staged the 2014 football World Cup and the 2016 Olympics. |
| Causes of growth | Rio has grown rapidly over the last 50 years to become a major industrial, administrative, commercial and tourist centre. These economic activities have attracted many migrants from Brazil (e.g. Amazon Basin) and other countries (E.g. Argentina, China and South Korea). |
| Social opportunities | There is better access to services. Authorities have invested in healthcare and education. There is also better access to resources, improvements have been made to the city's water and electricity supply. Improvements in Favela's, the Favela Bairro project . Paved and formally made roads. New health, leisure and education facilities. Installation of a cable car system. Access to a water supply and drainage system. Access to credit so residents can improve their homes. A Pacifying Police Unit (UPP) set up. |
| Economic opportunities | The growth of urban industrial areas has increased economic development. As industries develop this creates jobs and better wages for people. Rio has one of the highest incomes per head in the country, the city's retail and consumer sector is a major source of employment. |
| Social challenges | There is great inequality in Rio de Janeiro. There are challenges in providing important services for the rapidly growing population. Healthcare - only 55% of the city had a local family health clinic. Education - In Rio only half of all children continue their education beyond the age of 14. Water supply - around 12% of Rio's population do not have access to running water. Energy - The whole city suffers frequent black outs due to a shortage of electricity. |
| Economic challenges | The growth of Rio's urban industrial areas has boosted the city's economy. Brazil's economy was hit by a deep recession in 2015. This has increased unemployment. There is a large contrast in wealth, the richest 1% of the population earns 12% of the total income. Unemployment rates in the favelas are over 20%. Most people work in the informal economy (E.g. street vendors, maids & labourers). Robbery and violent crime present great challenges in Rio. Murder, kidnapping, car jacking and armed assault occur regularly. |
| Environmental challenges | The environmental challenges affect the quality of life for people in Rio. Air pollution is estimated to cause 5,000 deaths per year in Rio. Traffic congestion increases stress and pollution levels and wastes time for commuters and businesses. Water pollution - Guanabara Bay is highly polluted, causing a major threat to wildlife. Waste pollution - the worst problems are in the favelas. |

0 1 . 4 To what extent do urban areas in lower income countries (LICs) or newly emerging economies (NEEs) provide social and economic opportunities for people?

[6 marks]

A case study of a major city in UK - LONDON

| | | |
|---|--|--|
| Location & Importance | London is the capital of the United Kingdom, and the country's largest city (pop ⁿ 10.6m). It is located in the SE of the UK with good transport links to the UK and Europe. | |
| | Local Importance <ul style="list-style-type: none"> - Major UK tourist destination - Generates 22% of the UK's GNI - Home of the UK's Government | International Importance <ul style="list-style-type: none"> - 5 International airports - Has some of the world's best universities - Home to 251 overseas banks. \$71bn profit |
| Impact of migration | Around 30% of London's pop ⁿ were born in other countries. | |
| | Opportunities from Migration <ul style="list-style-type: none"> - A vibrant and diverse culture - Motivated employees who moved for work - Improved local and national economy | Impacts of Migration <ul style="list-style-type: none"> - Lack of integration/ghettos - Pressures on housing and employment - Education for non-English speakers |
| Social Opportunities and Challenges | Urban change has created opportunities | |
| | <u>Recreation and Entertainment</u> <ul style="list-style-type: none"> - London has a booming entertainment industry. - 3 of the world's top 10 museums. More than 17,000 music performances/year <u>Cultural Mix</u> <ul style="list-style-type: none"> - More than 300 languages are spoken - Events like Notting Hill Carnival and London Pride celebrate diversity | Urban change has had social impacts <ul style="list-style-type: none"> <u>Education Inequality</u> <ul style="list-style-type: none"> - 41% of inner London students did not achieve good GCSE grades in 2014 <u>Housing Inequality</u> <ul style="list-style-type: none"> - House prices are very high = people cannot afford to buy <u>Urban Deprivation</u> <ul style="list-style-type: none"> - 28% of Londoners lived in poverty (2013) - Newham is one of the poorest UK areas |
| Economic Opportunities and Challenges | Economic Opportunities | |
| | <ul style="list-style-type: none"> - Avg. weekly income is higher than the UK - 45% of UK graduate jobs are in London - London contributes £34bn to the economy | Economic Challenges <ul style="list-style-type: none"> - Most unequal pay in the UK. Top 10% of earners earn 500% more than the lowest 10% - Wage gap reduces people's opportunities |
| Environmental Opportunities and Challenges | Environmental Opportunities | |
| | <u>Urban Greening</u> <ul style="list-style-type: none"> - London has 700 'green' roofs to improve air quality - London has 8 million trees and many parks | Environmental Challenges <ul style="list-style-type: none"> - New homes are built on greenfield sites - Less than 10% renewable energy use - Oxford St. is one of the most polluted streets in Europe |
| Urban Sustainability | Urban Sustainability Strategies | |
| | <u>Water Conservation</u> <ul style="list-style-type: none"> - Improvements to pipes to reduce leaks <u>Waste Reduction</u> <ul style="list-style-type: none"> - Recycling is being promoted, but Londoners only recycle 34% of their waste <u>Emissions Reduction</u> <ul style="list-style-type: none"> - Development of public transport network to reduce reliance on private cars - Promotion of cycling to reduce number of cars on the road | Urban Sustainability Impacts <ul style="list-style-type: none"> <u>Water Conservation</u> <ul style="list-style-type: none"> - Water leaks and usage are reducing <u>Waste Reduction</u> <ul style="list-style-type: none"> - Lots of waste is shipped to China, but this is reducing as people recycle more <u>Emissions Reduction</u> <ul style="list-style-type: none"> - London has lower than average per capita (per person) CO₂ emissions - Londoners drive an average of 6000 miles less per person, than the rest of the UK |
| Transport strategies | Transport Strategies | |
| | <u>Congestion Charging</u> <ul style="list-style-type: none"> - £10 fee to enter central London Mon-Fri <u>Public Transport</u> <ul style="list-style-type: none"> - New tube lines: West-East Elizabeth Line - London has over 9000 buses on 600 routes <u>Encouraging Cycling</u> <ul style="list-style-type: none"> - Cycle superhighways and 10k 'Boris' bikes | Transport Impacts <ul style="list-style-type: none"> <u>Congestion Charging</u> <ul style="list-style-type: none"> - Reduced car use in Central London by 30% <u>Public Transport</u> <ul style="list-style-type: none"> - Elizabeth Line will carry 200m people/year - 80 buses are electric or hydrogen = no CO₂ <u>Encouraging Cycling</u> <ul style="list-style-type: none"> - 23m bike journeys in 2014, reducing CO₂ |

Evaluate the effectiveness of an urban transport in a city you have studied (9 Marks + 3 SPaG Marks)

B. The changing economic world

An example of how the growth of tourism in an LIC or NEE helps to reduce the development gap.

Kenya is a low income country in East Africa. It attracts tourists because of its tribal culture, safari wildlife, warm climate and beautiful un-spoilt scenery.

| Positives of tourism | Negatives of tourism |
|--|--|
| <ul style="list-style-type: none"> ○ Tourism contributes to over 12% of Kenya's GDP. ○ Tourism accounts for 10% of all employment in Kenya. ○ Money from tourism can be spent on development and improving quality of life. ○ Improvements in infrastructure- roads, airports, telecommunications, electricity supplies. | <ul style="list-style-type: none"> ○ Only a small proportion of money earned goes to locals. ○ Tourist vehicles damage the environment. Tourism has led to an increase in pollution. ○ Many jobs are low paid and unskilled. ○ Local people have been forced off their land to create National Parks. ○ Economic leakage means much of the money from tourism goes back to HIC's. |

Question

Evaluate the effectiveness of tourism in reducing the development gap. [9 marks]

A case study of one LIC or NEE.

Case Study: Nigeria, A Newly-Emerging Economy

Location and importance (globally and regionally)

- Nigeria is a country in West Africa, bordering Benin, Niger, Chad and Cameroon.
- Tropical climate with variable rainy and dry seasons
- **Newly emerging economy (NEE)** – experiencing a period of rapid economic development
- 2014 – Nigeria became the world's 21st largest economy
- Supplies 2.7% of world's oil – 12th largest producer
- **Diverse economy** – financially, telecommunications and media (Lagos is thriving global economic hub)

Political, social, cultural and environmental context

| Political | Social | Environmental |
|---|---|--|
| Huge global role – 5 th largest contributor in UN peacekeeping missions around the world | Multi-ethnic and multi faith country: ethnic groups in Nigeria include Yoruba, Hausa, Fulani and Igbo | Nigeria's natural environmental form series of bands across the country |
| Exploited by Europeans for resources and people (slavery) | Christianity, Islam and traditional African groups practiced widely | Northern Nigeria – far north is semi desert, further south is tropical grassland used for grazing cattle and growing crops e.g. cotton |

| | | |
|--|--|--|
| Nigeria became fully independent from the UK in 1960 along with many other African countries | Social diversity is one of Nigeria's greatest strengths but also been a major source of conflict | Jos Plateau – upland region, wetter and cooler than surrounding savanna. Densely populated farmland |
|--|--|--|

| Advantages | Disadvantages |
|------------|---------------|
|------------|---------------|

| | | |
|---|---|--|
| Power struggles resulted in series of dictatorships and civil war (1967-1970) | 1967 – Igbo dominated south east trying to separate from Nigeria and become Republic of Biafra (caused civil war) | Southern Nigeria – high temperatures and high annual rainfall. Forest land used for cocoa, oil palm and rubber |
| Lack of political stability – government corruption affected development | Economic inequality between North and South create new religious and ethnic tension | Southern Nigeria tough to keep cattle because of tsetse fly which transmits parasite that is lethal to livestock |
| Now politically stable : China making major investments in construction | Rise in Islamic fundamentalist group Boko Haram – created unstable situation and negative impact on economy | |
| South Africa investing in business and banking | Reduction in investment and rise in unemployment | |

Changing industrial structure

- Political links have changed – Nigeria part of British Commonwealth and now has equal common status with all countries including the UK
- **Nigeria now global trading nation** - main exports are crude and refined petroleum, natural gas, rubber, cocoa and cotton
- Main imports include telephones, refined petroleum, cars, rice and wheat
- Crude oil dominates Nigeria's exports – India is Nigeria's biggest customer
- Agriculture – reliance on crude petroleum has reduced importance of agricultural products
- The economy of the country is divided into sectors (retail, tourism, finance, public services) – since 1999 there have been major changes to **industrial structure**
- Employment in agriculture has dropped due to increasing use of machinery and better pay in other sectors
- Industrialisation and economic growth under stable government increasing employment in oil production, manufacturing (construction, pharmaceuticals and communications)
- Manufacturing stimulating economic growth – regular paid work, secure income, close links between industries, foreign investment, industries grow and more people are employed (revenue from taxes increase).

TNCS (trans-national corporations)

- Large companies operating in several countries: TNC's locate in foreign countries in order to take advantage – tax incentives, laxer environmental laws, cheaper labour, access to wider market

| | |
|---|--|
| Direct employment and development of new skills | Poor pay and working conditions |
| More money spent on economy - valuable export revenues earned | Management jobs often go to foreign employees brought by TNC |
| Investment by companies in local infrastructure and education | Much profit goes abroad - grants and subsidies used to attract TNC's aren't always used to invest in local economy |
| Investments in healthcare, education, water supply etc. | Sometimes environmental degradation |

International aid

Types of aid:

| | | | | | |
|--|---|---|---|--|--|
| <u>Short term:</u> Emergency help after natural disaster | <u>Long term:</u> Sustainable aid to improve resilience | <u>Tied:</u> Aid may be given with certain conditions e.g. money spent in donor country | <u>Voluntary:</u> Money donated by general public in richer countries and NGO's | <u>Multilateral:</u> Richer gov.s give money to an international organization such as World bank to redistribute money | <u>Bilateral:</u> Aid from one country to another (often tied) |
|--|---|---|---|--|--|

- Impacts of aid in Nigeria – many benefits to people living in poverty, most successful projects community based and supported by small charities and NGO's
- **Aid in Nigeria:** aid from USA helps to educate and protect people against spread of HIV/AIDS, 2014 World Bank approved US\$500 million to fund development projects and provide long term loans, NGO Nets for Life provides education on Malaria prevention and distributes anti mosquito nets to many households

Environmental impacts of economic development

- Industrial growth can be detrimental – in Kano, Kaduna and Lagos harmful pollutants released into open drains and water channels (harmful to people and environment)
- Industries releasing chemical waste onto nearby land, poisonous gases released, **70-80% forests destroyed** through logging, agriculture, urban expansion, roads and industrial development
- **Urban growth** – squatter settlements, waste disposal, traffic congestion
- Mining and oil extraction – damaged ecosystems through soil erosion, water pollution, fires, acid rain destroying plants and aquatic ecosystems

Quality of life – effects of economic development

- Reliable better paid jobs – higher disposable incomes to spend on schooling, home improvements, food, clothes, and recreation
- Improvements to safe water and sanitation
- Reliable electricity supplies providing lighting and heating – use of mobile phones and internet (access to wider world)
- Better quality healthcare – better doctors and better equipped hospitals
- Improvements to roads – better access to schools, hospitals etc.

Question

Evaluate to what extent economic development has improved the quality of life for people living in an LIC or NEE (6 marks)

C. The challenge of resource management

An example to show how the extraction of a fossil fuel has both advantages and disadvantages.

Gas- a non-renewable resource. The Camisea project began in 2004 to exploit a huge gas field in the **Amazonian region of Peru**. The project has brought both advantages and disadvantages.

| Advantages | Disadvantages |
|---|---|
| <ul style="list-style-type: none"> ○ It could save Peru up to US\$4 billion in energy costs. (More energy secure) ○ It provides employment opportunities and boosts local economies. ○ Peru could make several billion dollars in gas exports. ○ Improved infrastructure benefits local people. | <ul style="list-style-type: none"> ○ Deforestation from the pipeline and other developments will affect natural habitats. ○ The project could impact the lives of several indigenous tribes living in the forest. ○ Local people have no immunity to diseases brought in by the developers. ○ Clearing routes for pipelines has led to landslides and pollution of streams. |

| | | | | |
|---|---|---|---|--|
| 0 | 6 | . | 4 | <p>Using an example you have studied, examine how the extraction of a fossil fuel creates both advantages and disadvantages.</p> <p style="text-align: right;">[6 marks]</p> <hr style="width: 80%; margin: 20px auto;"/> |
|---|---|---|---|--|

An example of a local renewable energy scheme in an LIC or NEE to provide sustainable supplies of energy.

| | |
|-------------------------------|--|
| Location | Chambamontera is an isolated community in the Andes mountains of Peru. The solution to the community's energy deficit involved the construction of a micro- hydro scheme supported by the charity Practical Action. The steep slopes, high rainfall and fast flowing rivers make it an ideal area to exploit water power as a renewable energy source. |
| Social benefits | Health care has improved because refrigeration allows storage of medicines. Street lights allow people to go out after dark. Improved school facilities and homework can be done at home after dark. |
| Economic benefits | Business development is possible, as piped water can drive small machines for coffee processing. Reliable and cheap electricity- for computers, lighting, entertainment and refrigeration. The scheme will last at least 25 years. |
| Environmental benefits | Regulating the flow of water has decreased the risk of flooding. Less need to burn wood as a fuel source of heat- reduced deforestation and risk of soil erosion. |

Paper 3: Geographical applications and skills.

Two geographical enquiries which involved the collection of primary data as part of a fieldwork exercise.

Physical enquiry.

Title of fieldwork enquiry: **Investigating the channel characteristics along the river Darent.**

Human enquiry.

Title of fieldwork enquiry: **Investigating land use in the London Docklands.**

The pre-release Issue evaluation is the first section of paper 3. This is on UK water supply, demand and management. The resource from CGP which is in the booklet will help you prepare for this section of the exam.