

1. Expert Vocab

Global circulation model

Tropical storm

Storm surge

Eye of storm

Extreme weather

Tropical storm

Coriolis effect

Wind shear

Enhanced greenhouse effect

Climate change

Quaternary

Mitigation

Adaptation

2. General atmospheric circulation model: pressure belts and surface winds.

The whole system is driven by the equator, which is the hottest part of the Earth. Air rises at the equator, leading to low pressure and rainfall. When the air reaches the edge of the atmosphere, it cannot go any further and so it travels to the north and south.

Formation of a tropical storm

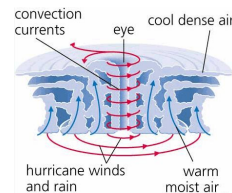
Tropical storms (hurricanes, cyclones, typhoons) develop as a result of particular physical conditions.

* Sea temperatures over 26.5 degrees

* Start between 5° and 30° north and south of the equator,

* The Coriolis effect causes the air to spin upwards around a calm central eye of the storm

* When the tropical storm meets land, loses the moisture and heat from the ocean, so it loses power and weakens.



3. Typhoon Haiyan - 2013 LIC

Primary: Tacloban experienced a 5-metre storm surge, and 400 mm of rainfall flooded an area of up to 1 km inland. 90% of Tacloban was destroyed and 6190 people died.

Secondary:

An oil tanker ran aground, causing an 800,000-litre oil leak that contaminated fishing waters.

Rice prices had risen by nearly 12% by 2014.

Immediate Responses

Over 1,200 evacuation centres were set up to help the homeless and over \$1.5 billion of foreign aid was pledged.

Long term response: Build back better

Launched in 2014, it intended to upgrade damaged buildings to protect them from future disasters. They have also set up a no-build zone along the coast in Eastern Visayas, a new storm surge warning system has been developed, and mangroves planted to absorb future storm surges.

4. UK extreme weather- Beast from the East: 2018

Cause: A meteorological event called stratospheric warming disrupted the jet stream, allowing cold winds from Russia to reach the UK.

Short term Impact: The cold air mass brought heavy snowfall, with up to 50 cm of snow in some areas, and temperatures dropping as low as -12°C in rural regions. 2 died.

Responses: Red weather warnings were issued. The Royal Air Force was drafted in to help relief efforts in snow-hit Lincolnshire. In Edinburgh, soldiers were deployed to help transport about 200 NHS clinical and support staff to and from the Western General Hospital and Edinburgh Royal Infirmary.

5. Climate Change - causes

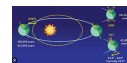
Evidence for climate change from the beginning of the

- Thermometer readings
- Glacier Retreat
- Ice Cores
- Early spring
- Rising sea levels



Quaternary period to the present day. Possible causes of climate change:

Natural factors - orbital changes, volcanic activity and solar output



Human factors - use of fossil fuels, agriculture and deforestation.

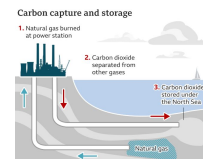


6. Managing climate change

Mitigation - limit the cause of the issue - e.g. reducing or preventing greenhouse gas emissions, and protecting carbon sinks.

these strategies can be on a local or global scale, e.g. investing in renewable energy.- alternative energy production, carbon capture, planting trees, international agreements.

Adaptation - where people respond to the impacts of climate change by adjusting how they live or work, in order to make themselves less vulnerable. change in agricultural systems, managing water supply, reducing risk from rising sea levels

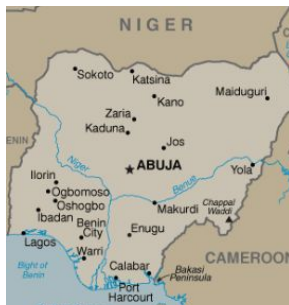


<p>1. Expert Vocab</p> <p>Urban CBD Inner City Inner Suburbs Outer Suburbs Commuter Settlement Urban Sprawl Derelict Redeveloped Sustainable Living Transport management Green field Brownfield Deprivation</p>	<p>2. Migration</p> <p>Migration within Leeds comes from different mix -</p> <p>EU countries such as Poland, Romania are the two biggest in 2015. Non EU countries India. Distribution: East Leeds, around the Inner</p> <p>Inner city areas (Armley, Beeston, Holbeck, Harehills).</p> <p>National Migration: Students with 36000 per year, areas Headingley.</p> <p>International - Holbeck - since 1820', since 1950's-60s link to globalisation.</p> <p>Decline - Holbeck - Globalisation Large warehouses, factories and textile mills lined the South Bank area close to the Leeds-Liverpool canal. As companies outsourced manufacturing abroad many of these units closed.</p>	<p>3. Opportunities and challenges:</p> <p>Opportunities: Students bring new ideas and regenerate areas of old terraced housing where others didn't want to live. New businesses and services opened up for these including gyms / cafe / ideas linked to new ideas, wider range of food mix</p> <p>Challenges: House prices rising due to the increased population. E.g. Horsforth has developed as a wealthy suburb. Many of the homes are semi detached, housing professionals from the city centre. House prices are high, schools are high quality and the environment is good with lots of green space.</p>
<p>4. Urban Green, Transport and Waste Management</p> <p>Urban Greening: 7 major parks including Roundhay, Bramley. Green Flag standard - gone from 23% in 2006 to 70% in 2018. New parks : Park Square in the city centre and Aire Park in the South Bank.</p> <p>Transport: Integrated system - park and ride (Stourton - bus runs every 10/15m £3 a day ticket)), supercycle highway (dedicated lane between Leeds and Bradford), Guided buses (dedicated lane that no one else can use),</p> <p>Waste: Veolia Incinerator: A £140m incinerator hoping to create enough power for 20,000 homes. Leeds City Council (LCC) said the £555m cost of building and running it over 25 years is about £200m less than it would have had to pay in landfill taxes.</p>	<p>5. Challenges: Decline and Regeneration</p> <p>Regeneration: Granary Wharf Before development work started on this site in 2006, the area was derelict due to the closure of factories like Temple Works. Historically it would have been a hive of industry £350 million South Bank Regeneration project. The area has become a hive for business and leisure activities. Completed in 2009, Candle House has been named this for resembling a Candle. It has become an iconic part of Leeds' skyline.</p> <p>Sustainable living: Greenhouse Development - £26 million Beeston. 8 story building - 172 flats and 15,000 square meter office space. Eco friendly with triple glazed windows, thick insulated walls, dual flush toilets to save water and uses renewable energy. The electricity comes from the wind turbines and solar panels located on the roof. Specialist building materials were sourced locally to reduce their carbon footprint.</p>	<p>6. Urban Sprawl - Silsden</p> <p>Greenfield site - 23 miles from Leeds CBD / 28 miles from Bradford</p> <p>2013: 156 affordable new homes built 2023: 138 new homes including 28 affordable new homes.</p> <p>Advantages - easier to build new homes on as not restricted to previous development, transport links - train station of Ilkley meaning access to wider areas of West Yorkshire.</p> <p>Disadvantages: loss of greenfield sites, objections from local community causing a conflict (800 objection from the new development in 2023), increased traffic on rural roads. .</p>

GCSE AQA Geography		Subject: Human Fieldwork LEEDS	Paper 3
Hypothesis: <i>Regeneration has been successful in Leeds city centre.</i>			
<div>1. Expert Vocab</div> <div>Urban CBD Inner City Derelict Deindustrialisation Globalisation Redeveloped Sustainable Living Integrated transport management Brownfield site Regeneration Hypothesis</div>	<div>2. Location</div> <div><div><div><div><div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div></div></div></div></div>		

1. Expert Vocab

Urbanisation
 Natural Increase
 Rural to urban Migration
 Megacity
 Informal vs formal employment
 Informal settlement
 slum / squatter
 settlements - old term)

**2. Location of Lagos**

Lagos is its largest city, located in the southwest on the coast of the Gulf of Guinea, near border of Benin
 * 1990 population four million, 2015 just over 12 million by 2015. 2024 - 16.5 million.

Regional importance

- * 10% of Nigeria's population lives in Lagos.
- * Lagos provides 30% of Nigeria's GDP.
- * Most manufacturing industry is in Lagos.
- * transport hub with an airport and port

National importance

- * Lagos is Nigeria's media centre
- * 80% industry around Lagos

International:

- * 80% of flights into West Africa go via Lagos
- * Venue for major sporting events

3. Growth in Lagos

10% of Nigeria's population lives in Lagos.

Cause:*** Rural-urban migration**

rural have low wages, poor education opportunities, impact of climate change, few job opportunities.

*** Natural increase**

youthful population - birth rate 35 per 1000, fertility rate dropping from 5.5 per woman in 2 to 5.1 in 2023.

Pull factor to Lagos:

- * 68% of the population of Lagos has a secondary education (40% don't even attend primary school in rural areas in the north of the country)
- * Lagos also has a thriving film and music industry — 'Nollywood' films
- * construction jobs, e.g. building the new commercial centre, Eko Atlantic.

4. Opportunities in Lagos

- * Lagos provides 30% of Nigeria's GDP.
- * Most manufacturing industry is in Lagos.
- * All children are offered a basic education by the Lagos State Government for their first 9 years.
- * Lagos home to many universities and training colleges - over ten universities in Lagos
- * constructing a new city called Eco Atlantic with opportunity for quarter of a million people and employ 150,000 more.
- * Port of Lagos - Lagos Lagoon provides a sheltered harbour for ships, making it very accessible.
- * 40% jobs are informal. Eg: Olusosun Landfill site
- * Eco Atlantic

5. Challenges in Lagos

- * Over 60% of Lagos live in informal settlements such as Makoko - built on stilts above Lagos Lagoon.
- * Lack of sanitation, electricity and employment e.g. most of the residents of Makoko work in the informal economy or make a living by fishing.
- * Only 10% of Lagos has access to piped water.
- * Brain drain - high trained professionals leave to go to other areas due to lack of opportunities.
- * Only 40% of the 10,000 tonnes of daily waste produced is collected.
- * air pollution 5x higher than international regulations
- * one of the most congested cities worldwide - 3 hours is the average commute.

6. Urban planning**Improving transport**

LAMATA - organisation responsible for improving transport. **Created bus lanes** - Bus wait times 10 min, air pollution on route reduced by 13%, affordable fares. A new railway, part opened 2016, new stations opened 2023 and 2024.

Improving quality of life in Mokoko

Floating communities - designed to create homes on the water in areas where there is overcrowding, shortages of clean water, lack of electricity. Sustainable buildings which collect rainwater and floats to combat sea level rise. Floating school was the prototype - 100 students, collected rainwater for drinking, solar panels, **Eco Atlantic** - artificial island aimed at the wealthy but increase employment in construction

Opportunities in Lagos

- 80% of Nigeria's industry is located in Lagos.
- 80% of flights to West Africa go via Lagos.
- 600 000 people migrate to Lagos each year to make the most of education, healthcare and job opportunities.
- Lagos has a natural harbour which creates opportunities for international trade.
- Lagos home to many universities and training colleges - over ten universities in Lagos
- 40% jobs are informal. Eg: Olusosun Landfill site where people search through the waste, recycling materials they can make money from. Eg: copper wire. This is dangerous and unsustainable.

Eko Atlantic:

Built on land reclaimed from the sea next to Victoria Island (wealthy)

- Create jobs for 150 000 people can homes for 250 000.
- Interventional schools, hospitals, shopping malls and a marina.
- Consider who benefits from this? What type of jobs are these?



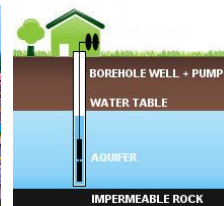
5. Challenges in Lagos

Overcrowding/ Squatter Settlements:

Over 60% of Lagos live in informal settlements such as Makoko - built on stilts above Lagos Lagoon. Lack of sanitation, electricity and employment e.g. most of the residents of Makoko work in the informal economy or make a living by fishing. What problems does this bring for people?

Sanitation and Water: Only 10% of Lagos has access to piped water. Other sources include Bore Holes, and street vendors. This water can be contaminated by sewage and oil.

Only 40% of the 10,000 tonnes of daily waste produced is collected, leaving waste on the streets.



Traffic and Air Pollution: air pollution 5x higher than international regulations, average commute to work is 3 hours.

LAMATA - organisation responsible for improving transport. **Created bus lanes** - Bus wait times 10 min, air pollution on route reduced by 13%, affordable fares.

A new railway, part opened 2016, new stations opened 2023 and 2024.



6. Urban planning

Improving quality of life in Mokoko

Floating communities - designed to create homes on the water in areas where there is overcrowding, shortages of clean water, lack of electricity. Sustainable buildings which collect rainwater and floats to combat sea level rise. Floating school was the prototype - 100 students, collected rainwater for drinking, solar panels, and a community space for vaccination market.



1. Expert Vocab

Distribution
Resources
Food/ Water/ Energy/
Distribution
Inequality
Food miles
Agribusiness
Organic
Surplus / Deficit
Seasonal food
Energy Mix
Renewable energy
Consumption
Food security
undernourishment
Aeroponics and hydroponics

**2. UK**

Water: 50% of the UK's water is used at home.
Increased water use: household appliances, personal hygiene, industrial production.
Polluted or low-quality water reduces available for use.
Effects: Pesticides are detrimental to aquatic wildlife
Managing water quality: UK legislation sets boundaries on the quantity and type of discharge from factories and farms into rivers.
Deficit: London (high population, low rainfall)
Surplus: Lake District
Water transfer scheme: Kielder
Disadvantages: dams expensive, disrupts fish migration
Advantages: Reservoirs create new habitats.

3. UK

Food: Cheaper for food to be grown in low-income countries and transported to the UK. 45% per cent of the UK's food was imported in 2019.
Organic food: Crops are rotated to maintain nutrients. It is + for the environment= less pollution
Energy: Domestic consumption has been reduced.
Decline in reserves of oil & gas now means the UK is reliant on imported fossil fuels. All coal-fired power stations closed in 2024. Switch to renewable energy.
Economic & Environmental - energy production
Many jobs have been created in research and development and the manufacture of wind turbines and solar energy panels. Set up costs for renewable sources of energy such as wind, tidal and solar is very expensive. Negative impact -bird migration.

4. OPTION 4: FOOD

World produces enough food for everyone, access to it is not equal.
Food consumption is the types of diet e.g. HIC made up eggs, milk, LIC made up of cereals.
Demand for food growing: population, economic development (able to afford to buy expensive food)
What affects the amount of food we have?
Climate, pests and diseases, technology, water supply, conflict, poverty
Food insecurity affect people: social unrest, famine & undernourishment, rising prices, conflict,
Food insecurity affect environment: soil erosion, desertification
Increase food: irrigation, aeroponics or hydroponics

5. OPTION 4: FOOD

Large scale project:
Almeria, Spain,
Climate: Arid landscape, 200mm average annual rainfall, 3000 hours of sun per year, temp 20°C.
Grows in greenhouses tomatoes, lettuce, cucumbers etc
Advantages: employment, supplies fruit and veg all year around and better than shipped from overseas, infrastructure improved. Low heating costs due to the temperature.
Disadvantages: conflict with immigration and some illegal immigration, plastic is dumped, ecosystems destroyed, high water levels.

6. OPTION 4: FOOD

LIC / NEE Jamalpur, Bangladesh
Small scale rice farmers - rice-fish culture.
Introducing small fish into the paddy fields, which is a natural fertiliser with their droppings, eat insect pests and help circulate oxygen around the paddy field. Keeping fish can increase yields by 10% as well as providing extra protein in the farmer's diet.
Charities: Practical Action
Initiative included: clean water, rainwater harvesting, crop irrigation, tree plantation stop soil erosion),
Sand Dam - underground water reservoirs.
Success: improved crop yields (how many crops), decline in water-borne diseases, safe water for schools, less time farming = more time in school.