

## What is the difference between weather and climate?

Weather is the day to day state of the atmosphere (sunny/ cloudy/ rainy)



Climate is the typical weather conditions in an entire region for over 30 years.

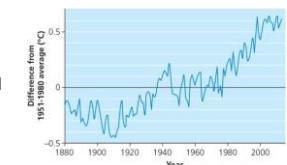
Climate Change is when changes in Earth's climate system result in new weather patterns that last for at least a few decades

- The 20 warmest years on record have all come since 1995.
- In the northern hemisphere since the beginning of the twentieth century, in the UK, summer rainfall is decreasing on average, while winter rainfall is increasing, leading to repeating patterns of summer drought and winter flooding.
- The world's oceans are heating up as they absorb most of the extra heat being added to the climate system. Research suggests the global sea level has risen between 10 cm and 20 cm in the past 100 years.
- Arctic sea ice has been declining since the late 1970s, reducing by about 4 per cent, or 0.6 million square kilometres

As the temperature of the land and sea increase, greater evaporation rates occur. This leads to an increase in the humidity of the atmosphere. This will ultimately lead to an increase in global rainfall.

## What is the evidence for climate change?

The world's oceans are heating up as they absorb most of the extra heat being added to the climate system. More than 90 per cent of the warming that has happened on Earth during the past 50 years has gone into the oceans. Water expands as it warms, leading to a rise in the sea level

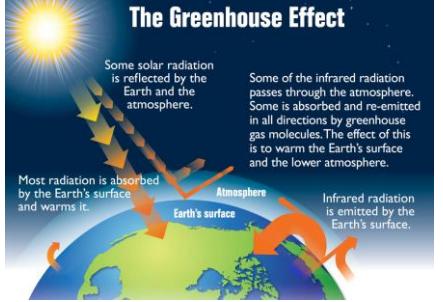


This data shows that the average temperature of the planet is rising, on average 0.8°C in the past 100 years. Most of the warming occurred in the past 35 years, with 16 of the 17 warmest years on record occurring since 2001.

# CLIMATE CHANGE AND THE EARTHS FUTURE

Year 9

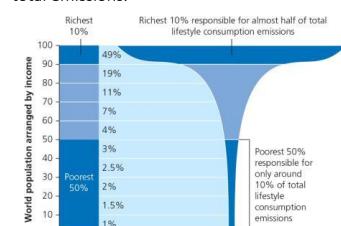
## Greenhouse Effect



Greenhouse gases make up only about 1% of the atmosphere. They act like the glass roof of a greenhouse – they trap heat and keep the planet warm. They let the Sun's light shine onto the Earth's surface, but they trap the heat that reflects back up into the atmosphere. This greenhouse effect keeps the Earth warm enough to sustain life. Scientists say that without the greenhouse effect, the average temperature of the Earth would drop from 15°C to as low as – 18°C.

## How is climate change linked to development?

Oxfam published a report in 2015, which identified the impact of development and world inequalities on the issue of climate change. They identified that the poorest half of the global population are responsible for only around 10 per cent of global emissions yet live in the countries most vulnerable to climate change. Whereas the richest 10% of the world's population are responsible for almost half the total emissions.



## What is the future for our planet?

In terms of climate change, the world has three possible options from this point forward:

- Do nothing – Live with the effects of climate change
- Adapt – Make life suitable to the changing climates
- Mitigate – Manage the impacts of climate change by finding ways to reduce the causes of climate change.



## Climate Change in the UK



### Map showing sea level rise:

- A warmer, wetter climate will bring benefits to agriculture, allowing for year-round crop cover and opportunities to grow a more diverse range of crops . Climate similar to the Mediterranean will attract tourists and bring money to the country.

- The number of households at significant risk of flooding be 1.9 million by 2050, if the global temperature rises by 4°C.

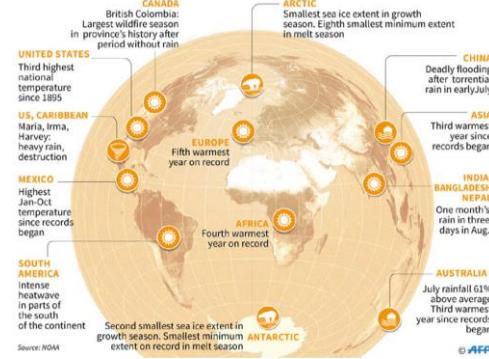
- The rise in world sea levels will mean an increase in sea level exceeding one metre and possibly as much as two metres on UK coasts by 2080
- Severe water shortages are expected by the 2050s

## Extreme weather and climate differences

New extreme weather events and unusual climate patterns are now occurring around the world each year.

Extreme weather events such as hurricanes and typhoons are clearly evident in 2017. These are swirling tropical cyclones that develop over warm oceans. They produce winds of 119 km per hour or higher, damaging buildings and trees when they hit land. They are becoming bigger and more frequent.

## Extreme weather events in 2017



## What can we do about climate change?

World governments have begun to make progress in the collaboration needed to work towards global solutions to climate change. In 2015, 178 countries agreed to these 17 Sustainable Development Goals.

In 2016, the Paris Climate Agreement was agreed by 195 countries and will take effect from 2020. It includes:

- Keep increase in temperature below 2°C.
- Rich countries must provide a 'floor' of \$100 billion from 2020.
- Developed countries must take the lead in reducing greenhouse gases
- Developed countries must provide financial resources to help developing countries

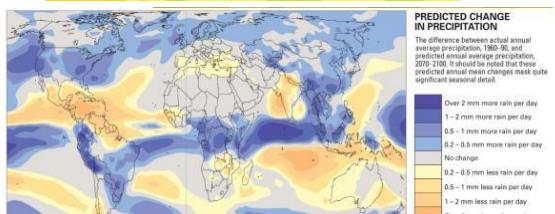
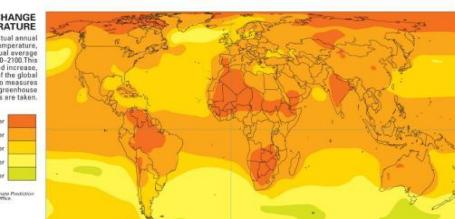


In June 2017, the USA withdrew from the Paris Agreement. President Trump said, 'The Paris Accord will undermine (the US) economy,' and 'puts (the US) at a permanent disadvantage.' This was in belief it would stunt economic growth as well as reduce their ability to emit greenhouse gases.

## What are the consequences of climate change?

- Rising maximum temperatures
- Rising sea levels
- Higher ocean temperatures
- An increase in hunger and water crises
- Health risks through rising air temperatures and heatwaves
- Increasing spread of pests causing increase in diseases such as malaria
- Loss of biodiversity as habitats destroyed
- Increase in time and intensity of monsoon season

These maps show the temperature changes and precipitation changes. Use CLOC to describe global maps.



## Causes of Climate Change:

Climate change is not new the world has been through a series of ice ages separated by periods of warming, called interglacial. Today, 97 per cent of scientists believe that human activity is to blame for this rise.

### Physical Causes

- Milankovitch Cycles** - The Earth's orbit can vary between being circular or more of an oval (elliptical) shape. These changes impact how much sunlight the Earth receives and can increase or decrease temperatures.
- Volcanic Eruptions** - The ash and gases reach high up into the stratosphere and prevent some sunlight from reaching the Earth's surface. This means that the sunlight is reflected back into space which cools the Earth and lowers global temperatures.
- Ocean Currents** - The changes in the patterns of these currents can lead to periods of warming (El Nino) and cooling (La Nina) around the Pacific Ocean

### Human Causes

- Deforestation** - World-wide deforestation involves rainforest burning as well as clearing, which emits large amounts of CO<sub>2</sub> into the atmosphere as well as reducing the amount of trees to absorb CO<sub>2</sub>.
- Agriculture** - The amount of land needed for crop production has increased due to world population growth.
- Use of fossil fuels** - The use of fossil fuels such as coal, oil and gas has been increasing as the world's population grows. The burning of these fuels for industry, transport and energy has led to a significant increase in CO<sub>2</sub> levels across the globe.

## Key words:

**Adaptation** - Action that helps cope with the effects of climate change - for example construction of barriers to protect against rising sea levels, or conversion to crops capable of surviving high temperatures and drought.

**Agriculture** – The practise of farming

**Carbon dioxide** (CO<sub>2</sub>) - a gas in the Earth's atmosphere. It occurs naturally and is also a by-product of human activities such as burning fossil fuels. It is the principal greenhouse gas produced by human activity

**Climate** - is the typical weather conditions in an entire region for over 30 years.

**Climate Change** - when changes in Earth's climate system result in new weather patterns that last for at least a few decades

**Deforestation** - The permanent removal of standing forests that can lead to significant levels of carbon dioxide emissions.

**Development** – The processes of becoming 'better'

**Extreme Weather** - a weather event is significantly different from the average or usual weather pattern.

**Fossil fuels** - Natural resources, such as coal, oil and natural gas, containing hydrocarbons. These fuels are formed in the Earth over millions of years and produce carbon dioxide when burnt.

**Global warming** - The steady rise in global average temperature in recent decades, which experts believe is largely caused by man-made greenhouse gas emissions.

**Greenhouse effect** - The insulating effect of certain gases in the atmosphere, which allow solar radiation to warm the earth and then prevent some of the heat from escaping.

**HIC** – High Income Country – Eg: England

**LIC** – Low Income Country – Eg: India

**Milankovitch cycle** - a cyclical movement related to the Earth's orbit around the Sun

**Mitigation** - the action of reducing the severity

**NEE** - New Emerging Economy – Eg: China

**Carbon footprint** - The amount of carbon emitted by an individual or organisation in a given period of time, or the amount of carbon emitted during the manufacture of a product

**Precipitation** - rain, snow, sleet, or hail that falls to or condenses on the ground.

**Renewable energy**- Is energy created from sources that can be replenished in a short period of time. The five renewable sources used most often are: biomass (such as wood and biogas), the movement of water, geothermal (heat from within the earth), wind, and solar.

**Sea Level rise** - an increase in the level of the world's oceans due to the effects of global warming

**Weather** -The state of the atmosphere with regard to temperature, cloudiness, rainfall, wind and other meteorological conditions on a day to day basis.

## Revision Tasks:

- Make a mindmap/ poster/ revision cards/notes/ presentation/ song/ answer the following questions.

1. Define climate change
2. Define greenhouse gases
3. Cities in which part of the world are predicted to be the worst affected by the effects of flooding caused by global warming?
4. The poorest 50 per cent of the global population are, between them, responsible for what percentage of global CO<sub>2</sub> emissions?
5. What name is given to the impact that each of us has on the planet through our actions and our lifestyle?
6. How many years of average weather does climate take into consideration?
7. What can meteorologists learn about the consequences of climate change from studying extreme weather events?
8. List two positive changes and two negative changes for the UK, which are consequences of climate change.
9. What is the difference between weather and climate?
10. Describe the evidence of climate change
11. Describe the distribution of predicted global temperature change (use the map on the other side)
12. Describe the areas vulnerable to sea level change in the UK
13. Explain two human causes of climate change
14. Explain why an increase in global temperatures is leading to an increase in rainfall around the world.
15. Explain why sea levels are rising, and how this is an indicator of climate change.
16. Using figure 1, explain why climate change is a controversial issue
17. Discuss who is the most vulnerable to climate change
18. Evaluate whether climate change is a natural or human induced issue.
19. Suggest how each of the following people is likely to feel about climate change:
  - a. A farmer in the Midlands
  - b. A resident in York, living next to the river
  - c. A hotel owner on the south coast of England
20. Assess whether the UK should be worried about climate change.
21. Identify what the sustainable development goals are trying to achieve
22. In your opinion, which was the worst area of the world to live in for extreme weather events in 2017? Explain your choice of location.
23. Using a diagram, explain the greenhouse effect.
24. Evaluate whether the future for the planet lies in doing nothing, adapting and mitigating.
25. In 2017, the USA withdrew from the Paris Agreement. President Trump said "The Paris Accord will undermine (the US) economy,' and 'puts (the US) at a permanent disadvantage.' Explain what he meant by this and what new problems this creates for the world.

Figure 1:



We can't destroy the competitiveness of our factories in order to prepare for non-existent global warming. China is thrilled with us!



We are the first generation to be able to end poverty, and the last generation that can take steps to avoid the worst impacts of climate change. Future generations will judge us harshly if we fail to uphold our moral and historical responsibilities.

## Command Words:

**Analyse** - Take apart an idea, concept or statement and criticise it.

**Assess** - Come to a conclusion about the overall value or significance of something; discuss its positive and negative aspects to show balance.

**Compare** - Identify similarities and differences.

**Define** - State the meaning of an idea or concept.

**Describe** - Set out the main characteristics of something; DON'T EXPLAIN.

**Discuss** - Set out both sides of an argument (for and against) and come to a conclusion; there should be some evidence of balance.

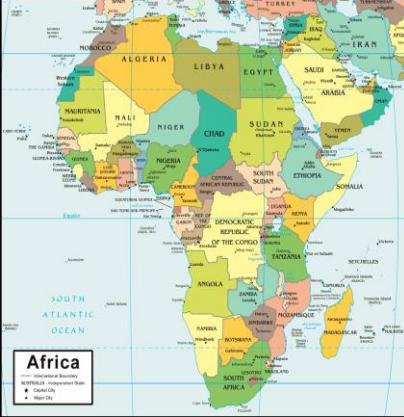
**Evaluate** - Make a judgement about the effectiveness of something; discuss its strengths **and** weaknesses and come to a conclusion about its overall success or importance.

**Explain** - Give reasons why something happens.

**Give** - Produce an answer from recall.

**Justify** - Support an idea or argument with evidence; for the outcome chosen, the positives must outweigh the negatives.

**State** = name



# AFRICA — Year 9

Africa is located South of Europe and South West of Asia.

Africa is the second largest continent in the world, by area and population; home to 1.2 billion people in 54 countries, speaking 1,500 different languages. Africa is rich in natural resources.

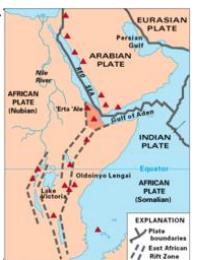
## Physical Geography—

Africa is a large continents with many biomes. Its vast Geography has provided the longest river in the world (The Nile), the biggest hot desert in the world (The Sahara) and many mountain ranges (Atlas mountains, Drakensburg mountains). The highest peak in Africa is Mt Kilimanjaro in Tanzania.

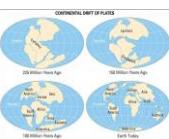
Opportunities	Challenges
<ul style="list-style-type: none"> <li>Africa is rich in natural resources:           <ul style="list-style-type: none"> <li>It exports 16 per cent of the world's uranium,</li> <li>In 2011, Africa produced more than half of the world's diamonds,</li> <li>Africa has 10 per cent of the world's oil and gas reserves.</li> </ul> </li> <li>The different climate zones allow Africa to be an area full of biodiversity – eg: Elephants in South Africa, Gorillas in Uganda.</li> </ul>	<ul style="list-style-type: none"> <li>Africa experiences different ecosystem zones - tropical rainforest/ Desert/ Savanna/ Mediterranean/ Grassland.</li> <li>Spread of disease – Malaria is common in Africa due to the climatic conditions - Fifteen countries in Africa accounted for 80% of all malaria cases globally.</li> <li>Different terrains makes transport difficult</li> </ul>

## The Great Rift Valley

Africa's surface is mainly composed of very old, stable, hard rocks.



Much of the continent is formed of one tectonic plate. The Great Rift Valley in East Africa is being formed as tectonic activity forms new plates.



## Social, economic and environmental challenges facing people who live in slums—



Unemployment rates are as high as 20% Average incomes are less than £75 a month



High murder rate of 20 per 1000



High infant mortality rate of 50 per 1000



12% of homes do not have access to running water



Many favelas have been built on steep slopes making them vulnerable to landslides.

Sewers are often open to run down the street

## Perceptions of Africa –

Many public figures and journalists often refer to Africa as one place. Africa is a continent with 54 countries. In the UK there is often the idea that all people from 'Africa' are poor and in desperate need of aid. Now this is really dependant on the country you are looking into.

These ideas come from:

- The media – headlines such as 'Deadly daily poverty'.
- Charity Campaigns - Red Cross and Red Nose Day.
- Songs – eg: Africa by Toto and Band Aid, Do they know its Christmas



## Desertification –

The process of land turning into desert as the quality of the soil declines over time.

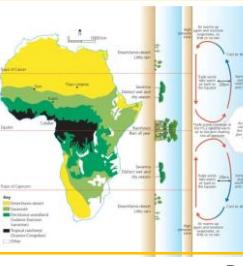


'Sahel' is an Arabic word meaning 'edge' or 'shore'. It lies at the southern edge of the Sahara Desert.

Causes =

- The population is increasing rapidly and too many people have cleared the vegetation for firewood, shelter and farming.
- Droughts have occurred
- Livestock have also overgrazed the vegetation. The removal of vegetation exposes soil to wind and water erosion

Solution = Great Green Wall – Vegetation planted stretching across Africa. It is hoped that this will prevent soil erosion and halt desertification.



## Urbanisation –

Africa currently has the highest rate of urbanisation in the world. In 1990, there were only 24 cities in Africa with more than 1 million inhabitants. Today this number has increased to 48 cities.

Push = Reasons to move away from a place

- People may want to leave the African countryside because they have to work so hard to survive and have few opportunities for education, healthcare, etc.
- Desertification
- Poor transportation in local area



Pull = Reasons to move to a place

- They may want to move to the cities to get a job and be able to send their children to school.
- To have access to food and water

## The Scramble for Africa –

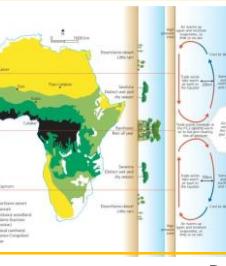
The competition between different European empires to take over as much land in Africa as possible (1880-1914).

- ✓ Europeans established plantations
- ✓ Europeans stabilised roads between villages and towns
- ✓ Europeans started educating the people in Maths, Science and English
- ✓ Europeans put in water pipes, sewage systems, and electricity. Eventually they also built telephone lines.
- ✓ They created official countries instead of the tribal boundaries that often changed.



## Climate zones-

The climate zones and biomes of Africa have evolved as a repeated pattern north and south of the Equator.

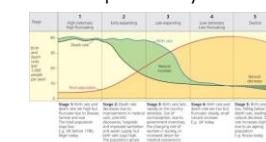


## Population –

The continent of Africa has a population of 1.1 billion people, with an uneven distribution.

Africa's population has been on the increase over the past 50 years and now 60 per cent of Africa's population are younger than 25. The population is projected to double by 2050 to around 2.4 billion people.

- ✓ Young work force
- ✓ Decrease in child mortality
- ✓ Increase in life expectancy
- ✗ Lack of jobs for the growing population = increase in poverty
- ✗ Increase urbanisation Harder for governments in these countries which are already struggling with reducing poverty



## Key Words:

**Atmosphere** – The thin fragile, layer of gases that surrounds earth

**Biosphere** – Living matter on the earth including all plant and animal life

**Biomes** – An area with the same climate, plants and animals.

**Colonisation** - one country having political or economic control over another country. One culture dominates another. It usually involves controlling resources.

**Climate** – The average weather over a period of time

**Desertification** - the process of land turning into desert as the quality of the soil declines over time.

**Development** – The process of getting better.

**Drought** - a period of abnormally dry weather that lasts long enough to lead to a serious lack of water, and crop failure. This region is known to the world for its frequent famines which have led to the death of millions of its inhabitants.

**Ecosystem** – An interaction of all living and non-living things

**Hydrosphere** – The water on the earth's surface in oceans, rivers, lakes and mist

**Lithosphere** – The earth's crust including landforms, rocks and soil.

**Population** – all the people who live in a particular geographical area

**Perceptions** – How we see/ feel about somewhere

**Semi-Arid** – An area with little rain but not completely dry

**The Scramble for Africa** - The competition between different European empires to take over as much land in Africa as possible (1880-1914).

**Urbanisation** - the process of making an area more populous and like a city.

**Unemployment** - when persons above a specified age are not in paid employment.

## Revision Tasks:

• Make a mindmap/ poster/ revision cards/notes/ presentation/ song/ answer the following questions.

1. Define Urbanisation
2. Use the pictures below to name the biomes found in Africa.



3. State the longest river in Africa.
4. How many countries are located in Africa? How many can you name?
5. Explain where our perceptions come from. Use the newspaper article below to help.
6. Describe the Savanna biome in Africa.
7. Describe the location of Africa in the world.
8. What is the name given to the huge feature that is being created as the African plate splits apart?
9. Explain one cause of desertification in the Sahel.
10. Explain one solution to desertification in the Sahel.
11. State one push and one pull factor for urbanisation in Africa
12. What are the challenges facing the people of Africa?
13. Explain the formation of the continent of Africa.
14. Give a social challenge of those who live in slums.
15. Evaluate if the physical geography of Africa provides opportunities or challenges for its people.
16. Assess the challenges climate zones can provide when development occurs in Africa.

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## Africa is not a country

There are 54 states on the continent, yet the media insists on referring to it as one place.

Many public figures and journalists have no problem describing someone from Botswana and a person from Mauritania as 'Africans'. They probably wouldn't call them 'Americans' if they were from Brazil and the United States, even though the distance between the two is the same – and the economic conditions as different.

You don't have a film called *Out of Asia* and you rarely go to *Oceania* on holidays (instead you talk of vacations in Australia, New Zealand or another island). Yet for a continent of one billion people three times the size of the US, it's no problem to call it by one single name – '*Africa*'. This is hugely detrimental to many countries. When a civil war starts in the Central African Republic (*Africa!*), it negatively impacts countries as far away as Senegal (*Africa!*) and Lesotho (*Africa!*). This has to change.

**Enclave tourism** = Tourist activities are planned and kept in one small geographic area eg: Cancun, Mexico = Separate from its local community. With 150 hotels, 3 million tourists each year and \$4.36 billion to economy each year.

- ✓ Keep tourist communities and the local population apart = help to limit offence
- ✗ Enclave tourism results in very little financial benefit being directed towards the host community
- ✓ Lack of cultural awareness
- ✗ Environmental damage

**NIKE – A MNC (Multinational Corporation)**

- Nike operates in over 140 countries around the world.
- 41 of these countries manufacture Nike products.
- In 2014 Nike employed 48,000 people worldwide (20x higher if consider all the workers in factories who are outsourced).

**Nike in Vietnam** – Nike invested in Vietnam in 1995. Nike became Vietnam's largest foreign employer with ten factories employing 40,000 people. In 2015 employment rose to 300,000.

Advantages and disadvantages brought by MNC's such as Nike for Vietnam:

- ✓ Created 300,000 jobs
- ✓ Contributes to tax, which helps to pay for education and infrastructure
- ✓ Pays higher wages than local companies
- ✓ Helped to attract more MNC's
- ✗ Investment could be quickly moved away from Vietnam, leaving the people without employment
- ✗ Nike has a large demand for energy and water
- ✗ Factories gained a reputation of sweatshop conditions after workers experienced abuse

**Why has the global tourism industry grown?**

1. **Mass tourism** = began in the 1960's when MNC's began putting together package holidays which made holidays more affordable.
2. **Long haul flights** = As air travel became more affordable it allowed the growth of long-haul flights
3. **Independent travel** = Mobile and technology is also having a huge impact on the tourism industry. It allows travellers to be independent rather than rely on MNC's.
4. **Cruise holidays** = Cruise holidays provide the customer with the convenience of a package flight and accommodation and meals. But the option to be independent during the day.

### Ways to measure development -

Economic measures of development	Social measures of development
GNI (Gross National Income)	Literacy rate
GDP (Gross Domestic Product)	Access to safe water
PPP (Purchasing Power Parity)	People per doctor
	Infant mortality rate
	Life expectancy
	Birth rate
	Death rate
	HDI (Human Development Index)

**Development** = The process of a country becoming richer or having better healthcare and education.

HDI is considered to be the best measure of development as it takes into account both economic and social factors.

# Development and Resource Issues

## Paper 2

**Globalisation** - The free flow of goods, people, ideas and money. This makes a complex web of interdependence, linking people and places in distant continents

Advantages	Disadvantages
<ul style="list-style-type: none"> <li>• economic growth and improved standards of living</li> <li>• new jobs and helps to develop skills</li> <li>• increase in the sharing of ideas, experiences and lifestyles of people and cultures resulting in higher levels of understanding and tolerance</li> <li>• increase communication</li> </ul>	<ul style="list-style-type: none"> <li>• An absence of strictly enforced international laws means that TNCs may pollute the environment.</li> <li>• there are no guarantees that the wealth from inward investment will benefit the local community.</li> <li>• new employment can run risks with safety or impose poor working conditions and low wages on local workers.</li> <li>• It is feared that it might drown out local traditions in favour of a western viewpoint and western style of living.</li> </ul>

**Types of Trade**

- Trade blocks - Trading partnerships between countries
- Import Duty - A tax placed on goods brought into the country to make them more expensive
- Subsidy - A payment a country makes to its own farmers and business so that their goods can be sold at a lower price to consumers
- Quota - Restrictions on the amount of particular goods that can be imported each year
- Tariff - A type of tax that can be charged on goods as they enter the country

**Ghana** – Joined the WTO in 1995. Once joining Ghana had to stop paying subsidies to its farmers as this is banned by the WTO. These subsidies make American and EU food cheaper than their own so it gets imported. This means that tomato farms shut.

**Who decides the price of commodities (products)?**

```

    graph TD
      Supply[Supply (production)] > Demand[Demand (consumption)]
      Demand > Supply
      Demand[Demand (consumption)] > Supply[Supply (production)]
      Supply > Demand
      Demand[Demand (consumption)] --> Decrease[Decrease in price]
      Supply[Supply (production)] --> Increase[Increase in price]
  
```

Traders will buy products from the London Stock Exchange. If prices of a certain product is expensive then shops will buy the product from a cheaper country.

**Inequality in India (NIC) –**

51% of India is unemployed and many work in the informal sector. Each state in India is responsible for providing health and education services. This provides extreme differences in inequality.

**Kerala** = State government are generous = Life expectancy is high, birth rate is low. = 92% of the population can read and write

**Bihar** = State government only recently begun to invest in public health and education. = India's poorest state = 47% can read and write = 85% of population is rural

**Causes of uneven development:**

- Colonialism
- Independence
- Conflict
- Trade
- Poverty
- Physical factors (climate/natural hazards/water shortages/relief/re lief)

**Malawi –**

It is one of the poorest countries in Southern Africa as it is:

- Landlocked
- Little exports
- Suffered from HIV/AIDS

Middle Shire is an area in Malawi that relies heavily on the Shire river. The Shire river provides most of Malawi's HEP (hydro electric power).

**Exports** - In Malawi, agriculture employs 84% of labour and accounts for 85% of export earnings. Tea is cultivated (grown) on 44 farms owned by 11 MNC's as well as 10,000 locally owned farms. 90% of Malawi's tea is exported to the UK and South Africa.

**FAIRTRADE**

Fairtrade is about better prices and decent working conditions for farmers in the developing world as well as protection of the environment. Fairtrade limits child labour and improves locals access to healthcare.

**Ghana** – Cocoa production = employing 3.2 million farmers. Kuapa Kokoo is a co-operative of cocoa farmers. It sells part of its cocoa bean crop to Divine chocolate ltd.

**Why have NIC's grown?**

- strong, stable government
- a switch from agricultural to manufacturing and service jobs
- a focus on exports and trade
- products are kept cheap and competitive by using cheap, well-disciplined workers
- profits are invested in developing more industries and buying home produced goods - a multiplier effect
- over time the workforce becomes better educated and more skilled

But this can have impacts

Increased HDI      Increase in waste      Multiplier effect



## Tourism in Mexico – How does it help locals?

Advantages	Disadvantages
<ul style="list-style-type: none"> <li>Tourism creates direct employment for 52,000 people in Cancun and 175,000 jobs indirectly.</li> <li>\$4.36 billion is added to the economy by tourists to Cancun each year</li> <li>Tourism encourages greater entrepreneurship and improves language skills.</li> </ul>	<ul style="list-style-type: none"> <li>Sewage from the resort has caused the spread of disease in the coral reef</li> <li>Many jobs are seasonal and are a 1-3-month contract.</li> <li>Cancun suffers from tropical storms. In the past money has been invested into replenishing the beach rather than helping locals</li> <li>Quarter of the total garbage is produced by the hotel zone</li> </ul>

### Water Security -

South Africa –



When society has enough water to ensure everyone can access clean water, sanitation and the economy can grow food.

Reasons for water insecurity –

- Rising Population
- Economic Development
- Lack of global freshwater
- Physical Environment
- Climate Change
- Agriculture

Wealthier countries do generally use more water but countries such as Pakistan and Egypt do not fit the trend. In these Middle-Income Countries, the water is abstracted (taken) to irrigate crops. Therefore uses a lot more water than HIC's such as the UK.

In 2018 it was 3 months away from running out of water.  
*Rainfall is not distributed evenly over South Africa. It experiences relief rainfall*



To overcome this, The Lesotho Highlands Water Project (LHWP) was introduced. The largest-scale water transfer scheme in Africa. Dams collect and pipes transfer water to areas of water deficit.

Appropriate technology such as rainwater harvesting is also used.

### Reducing inequalities in UK



**Road improvements** - In 2014 the government announced a £15 billion 'Road Investment Strategy'. The aim is to increase the capacity and improve the condition of UK roads.

**Rail improvements** - Investment in HS2 to connect London to the rest of the UK and shorten rail time



**Port Developments** - A new container terminal is being constructed at the Port of Liverpool. Known as 'Liverpool2', the scheme to construct a deep water quay on the River Mersey will cost about £300 million.



**Airport Developments** - A new runway at Heathrow would cost £18.6 billion.



### Development continuum. -

**High income country** - These are states where office work has overtaken factory employment, creating a post industrial economy where employment is mainly in the tertiary industry. (GNI per capita) of US\$12,736.

EG: UK

**Upper middle country** - is a country that is starting to develop at a rapid rate. They have a GNI of \$4,126 and \$12,736. Transnational corporations (TNCs) invest in these NEEs, which have sub-groups like BRICS and MINTS

EG: China

**Lower middle country** – GNI of \$1,026 and \$4,125. Transnational corporations (TNCs) invest in these NIC's. The number of NIC's has increased rapidly in recent decades: this is linked to the spread of globalization. As a result their economies are largely reliant on secondary industries such as working in factories.

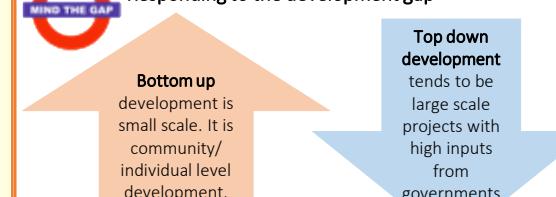
EG: Bangladesh

**Developing country (LIC – Low Income Country)** -They have a GNI of \$1045 or less. Agriculture still plays an important role in the their economies. As a result these countries are especially vulnerable to natural hazards such as flooding. It will often take them longer to recover as they do not have the economic support within their country.

EG: Mali



### Responding to the development gap



- Aid - Tazara railway that links Tanzania and Zambia was funded with international aid from China
- Industrial Development – China
- Debt Relief - Zambia had \$4billion of debt cancelled in 2005
- Fair trade – Divine Chocolate bars
- Microfinance – Phones for women in Bangladesh
- Intermediate technologies - WaterAid in Tanzania

### Free Trade

Developing countries rely on trade to increase their GNI. Since the 1980's the world has moved towards free trade. Each country within a trade block has a free trade agreement with countries in the block.

#### Advantages

- ✓ Countries can export as many goods as they like which is good for LIC's and NIC's
- ✓ Increase the income of producers in the country

#### Disadvantages

- ✗ Countries can find themselves swamped by cheap imports which can lead to jobs in its own country.



### How can tourism reduce the development gap?

The **Gambia** is a LIC in West Africa. Poverty, poor health care and education places this country among the poorest 25 in the world. The Gambia only has a few natural resources (exports the peanut).

- ✓ Tourism is the second highest earner for the Gambia. It contributes to 40% of the country's wealth.
- ✓ 30,000 people are employed directly in tourism and at least another 35,000 indirectly.
- ✗ Tourism is very seasonal
- ✗ Tourists are fearful of political unrest. The country's leader is very outspoken on some topics such as the rights of gay people.
- ✗ In 2014, Ebola meant the Gambia tourist numbers were drastically low.

### The Brandt Line

The Brandt line shows the economic gap that exists between the wealthiest and poorest groups in society.

Drawn by William Brandt in 1980, it separated the richer 'north' from the poorer 'south'. In 2013, Oxfam reported that the richest 85 people in the world owned the same amount of wealth as the poorest half of the world's population.



### TEST YOURSELF:

- State two methods to measure development (2 marks)
- Outline two advantages for fair trade cocoa growers (2 marks)
- Name a newly industrialised country and give two reasons to explain why this country has developed rapidly in recent years (4 marks)
- Give three reasons to explain why there is a north-south divide in the UK (4 marks)
- Explain why MNC's open factories in different countries around the world (4 marks)
- Give two reasons to explain why the consumption of water has increased globally (4 marks)
- Describe how improvements in technology and transport have helped the growth of the globalised tourist industry (6 marks)
- Explain why the demand for water is higher in high income countries than low income countries (6 marks)
- Explain why local economies have limited benefits from 'enclave tourism' (6 marks)
- 'The development gap provides a static view of the difference in development between countries.' What is meant by this statement? (8 marks)
- Evaluate the advantages and disadvantages of using the HDI to measure social development (8 marks)

### Command Words:

**Analyse** - Take apart an idea, concept or statement and criticise it.

**Assess** - Come to a conclusion about the overall value or significance of something; discuss its positive and negative aspects to show balance.

**Compare** - Identify similarities and differences.

**Define** - State the meaning of an idea or concept.

**Describe** - Set out the main characteristics of something; DON'T EXPLAIN.

**Discuss** - Set out both sides of an argument (for and against) and come to a conclusion; there should be some evidence of balance.

**Evaluate** - Make a judgement about the effectiveness of something; discuss its strengths and weaknesses and come to a conclusion about its overall success or importance.

**Explain** - Give reasons why something happens.

**Give** - Produce an answer from recall.

**Justify** - Support an idea or argument with evidence; for the outcome chosen, the positives must outweigh the negatives.

**State** = name

**To what extent** - Discuss and conclude how far you agree or disagree with a statement or view.



Box = command word  
Underline = key words  
Glance = back