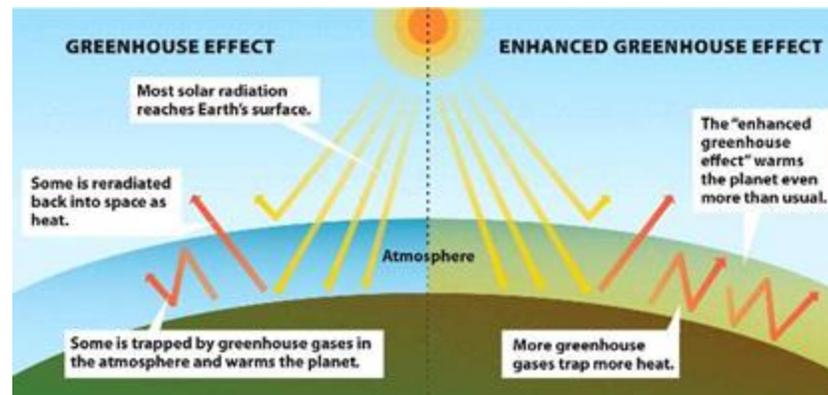


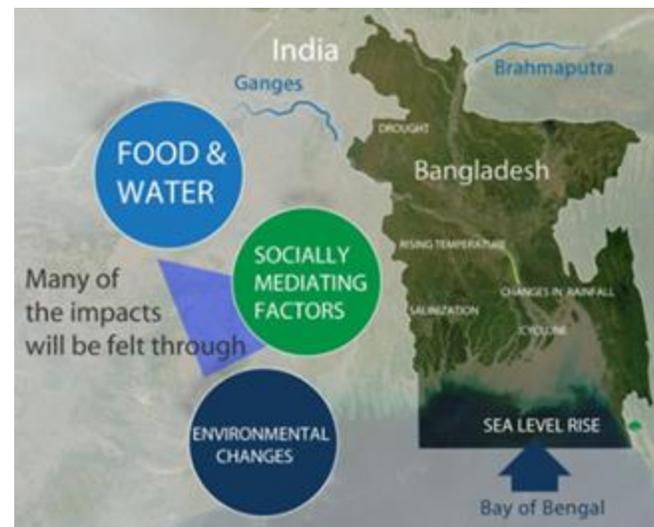
# Geography - Climate change Knowledge Organiser

Key word	Meaning
Weather	The <b>short term</b> state of the atmosphere, that can change within minutes (e.g. from sunshine to rain!)
Climate	The <b>long term</b> state of the atmosphere, usually taken as an <b>average over 30 years</b>
Global warming	A gradual increase in the Earth's <b>AVERAGE</b> temperature
Climate change	A change in <b>regional or global</b> climate patterns
Quaternary period	The <b>Quaternary Period</b> is a geologic time <b>period</b> that encompasses the most recent 2.6 million years
Glacial period	<b>A colder period</b> of time when ice covers more of the Earth
Interglacial period	<b>A warmer period of time</b> when the ice retreats, melts and causes sea levels to rise
Volcano theory	When the <b>gas and ash</b> from a <b>LARGE</b> volcanic eruption <b>reflects light back to space</b> , causing the Earth's climate to cool
Orbital theory	When the orbit of the Earth around the sun changes, causing the Earth's climate to change
Solar theory	When there are natural <b>changes in the amount of energy given out by the sun</b>
Greenhouse gas	A gas present in the atmosphere that <b>traps heat</b> e.g. Carbon dioxide and methane
Greenhouse effect	Where gases in the atmosphere <b>trap enough of the Sun's heat to make the planet habitable</b> . Without it the Earth would be 33 degrees Celsius cooler!
Enhanced greenhouse effect	Where <b>HUMAN ACTIVITY</b> is <b>ADDING</b> greenhouse gases to the atmosphere, meaning more heat is trapped and average temperatures increase
Crop yield	The amount of crops that is a <b>piece of land</b> is able to <b>produce</b>
Famine	When someone doesn't have <b>ENOUGH</b> to eat
Coral bleaching	When colourful coral reefs are <b>damaged and turn white</b> due to an increase in sea temperatures
Biodiversity	Having A <b>RANGE</b> of <b>plants and animals</b> in an area
Mitigation	These are strategies designed to <b>REDUCE</b> climate change e.g. Carbon Capture
Adaptation	When people, animals and plants <b>CHANGE</b> to <b>suit an environment</b>
Carbon capture	Where carbon dioxide is <b>captured from the atmosphere and pumped underground to be stored in rocks</b>
Deforestation	The <b>cutting down</b> of trees
Afforestation	The <b>planting</b> of trees
Carbon sink	Something that <b>absorbs more CO2</b> than it releases
Fossil fuels	Non renewable resources that <b>will run out</b> such as oil, coal and natural gas
Renewable energy	Resources that <b>should last forever</b> and will not run out anytime soon e.g. wind power, hydroelectric power etc
Dam	<b>A large barrier built across a river</b> to prevent flooding by controlling the flow of the river
Carbon footprint	<b>The amount of greenhouse gases</b> a person / group / organisation / country produces



## Human activity causes the Enhanced Greenhouse Effect:

- Burning fossil fuels
- Deforestation
- Mass production of meat
- Mass production of rice
- Dumping waste in landfill
- Increased use of transport
- Population growth
- Improved standards of living



## Why is Bangladesh vulnerable to climate change?

1. It is a country where many people are living in poverty
2. It has a high population (163 million), 28% of whom live near the coast
3. Around 25% of the country lies only 2 metres above sea level
4. It has the Himalayan glaciers to the north, which will be more prone to melting
5. Lots of major rivers meet in Bangladesh
6. It has a monsoon season
7. It suffers from tropical storms, which may get worse with climate change

## ADAPTATIONS:

- Flooding at the coast has meant that many of the rice farmers have lost their crops due to salt water contamination. To adapt to this they are crab fishing which can be done in saltwater
- Rainwater harvesting – due to freshwater supplies being contaminated by saltwater, many are collecting rainwater in tanks to overcome this

## Mitigation

### Afforestation (Planting trees)



Positive – Cheap solution and can absorb lots of CO2  
Negative – takes time for them to grow and have an effect

### Carbon Capture and Storage



Positive – It removes / prevents CO2 entering the atmosphere  
Negative – takes time for them to be put in place and put peoples bills up

### Global agreements (Paris Agreement 2016) (Kyoto Protocol 1997)



Positive – It is a global response to a global problem so MOST countries involved  
Negative – not set in law so doesn't have to be followed

### Renewable energy



Positives – long term solution and prevents fossil fuels being burnt  
Negatives – Some are expensive and not as reliable e.g. wind turbines only work with good winds