

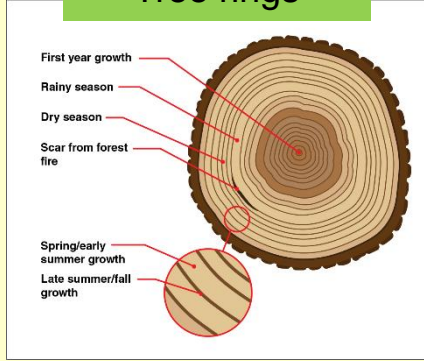


YEAR 8 KNOWLEDGE ORGANISER: What is the truth about climate change?

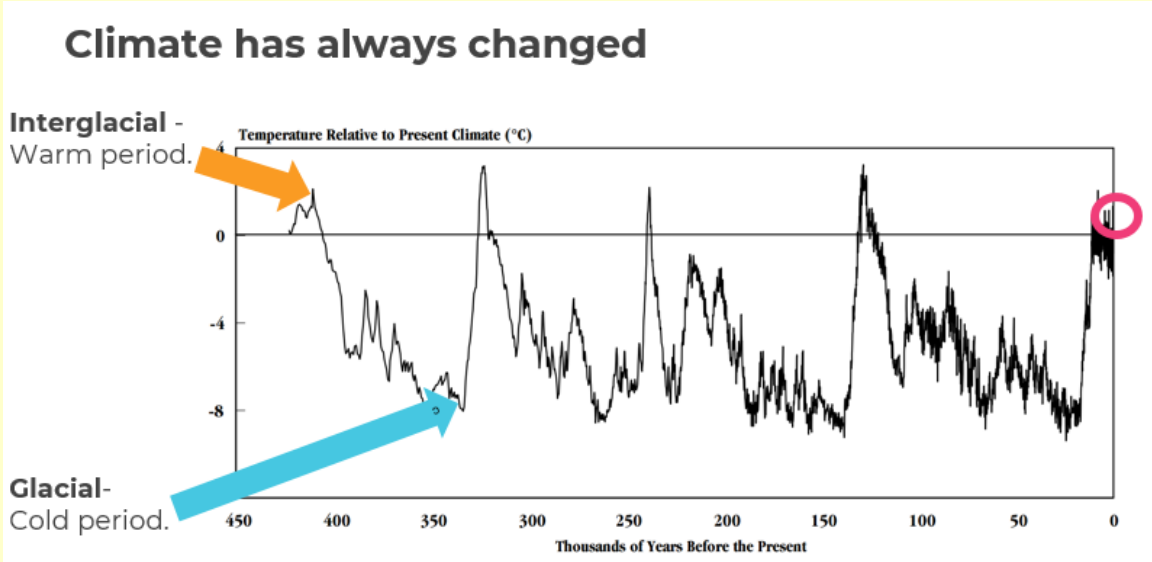
Climate change refers to **long-term shifts in temperatures and weather patterns**. These shifts may be natural, such as through variations in the solar cycle. But since the 1800s, human activities have been the main driver of climate change, primarily due to burning fossil fuels like coal, oil and gas.

There has always been climate change. There have been times in the past when it was much warmer than today and times when it was much colder. These **changes in the past were the result of natural causes**.

Tree rings



Old paintings



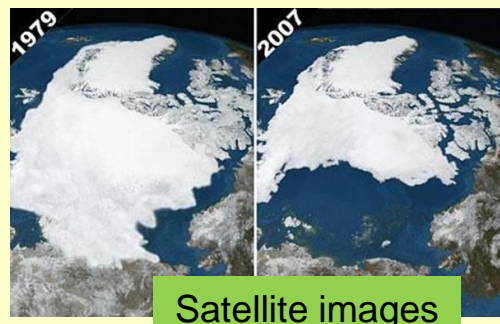
Ice cores



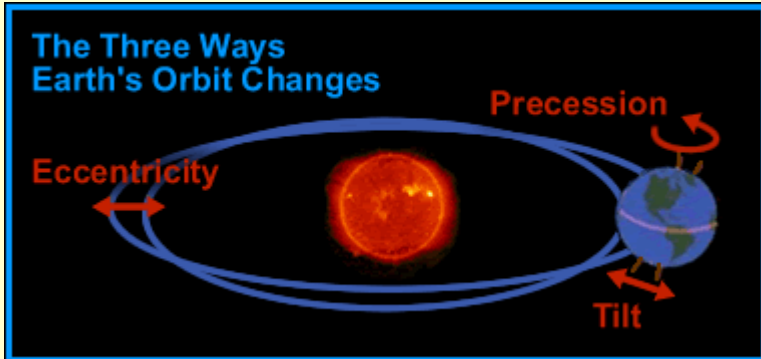
Evidence of past climate change



Rising sea levels

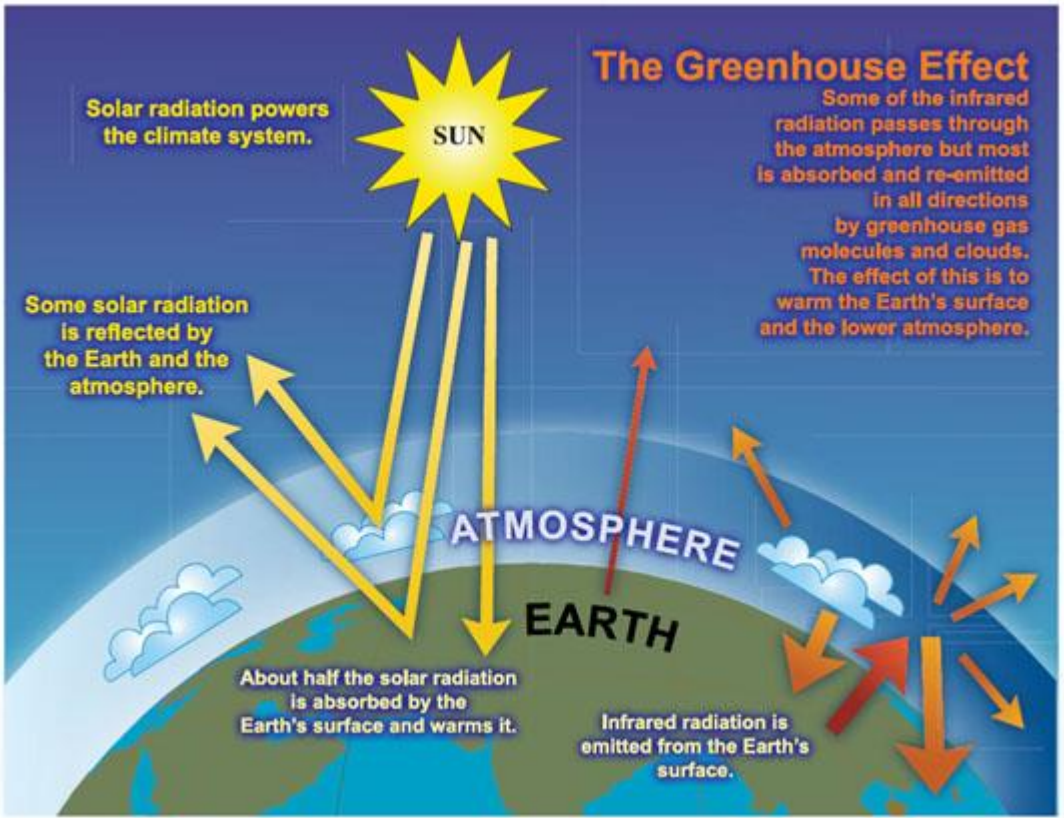


Satellite images



Past climate change happened because of natural causes

Natural cause	How it changed the climate on Earth.
Changes in solar output.	Over time, the amount of solar output changes. When the amount increases, temperatures on Earth become warmer. When the amount decreases the temperatures become cooler.
Changes in the Earth's orbit.	Over time, the Earth's orbit around the Sun changes from a circle to an egg shape. This means at times the Earth becomes closer to the Sun and temperatures on Earth will become warmer. At other times Earth is further from the Sun and temperatures become cooler.
Volcanic eruptions	When volcanoes erupt they give off large amounts of ash. This can block out the Sun's rays, leading to a temporary cooling of temperatures on Earth.



Since the 1800s, human activities have been the main cause of climate change. Some human activities produce greenhouse gases like carbon dioxide and methane. This thickens the layer of greenhouse gases in the atmosphere and traps in more of the heat. Human activities that produce greenhouse gases include burning fossils fuels, transportation, farming and industry.

The global effects of climate change.



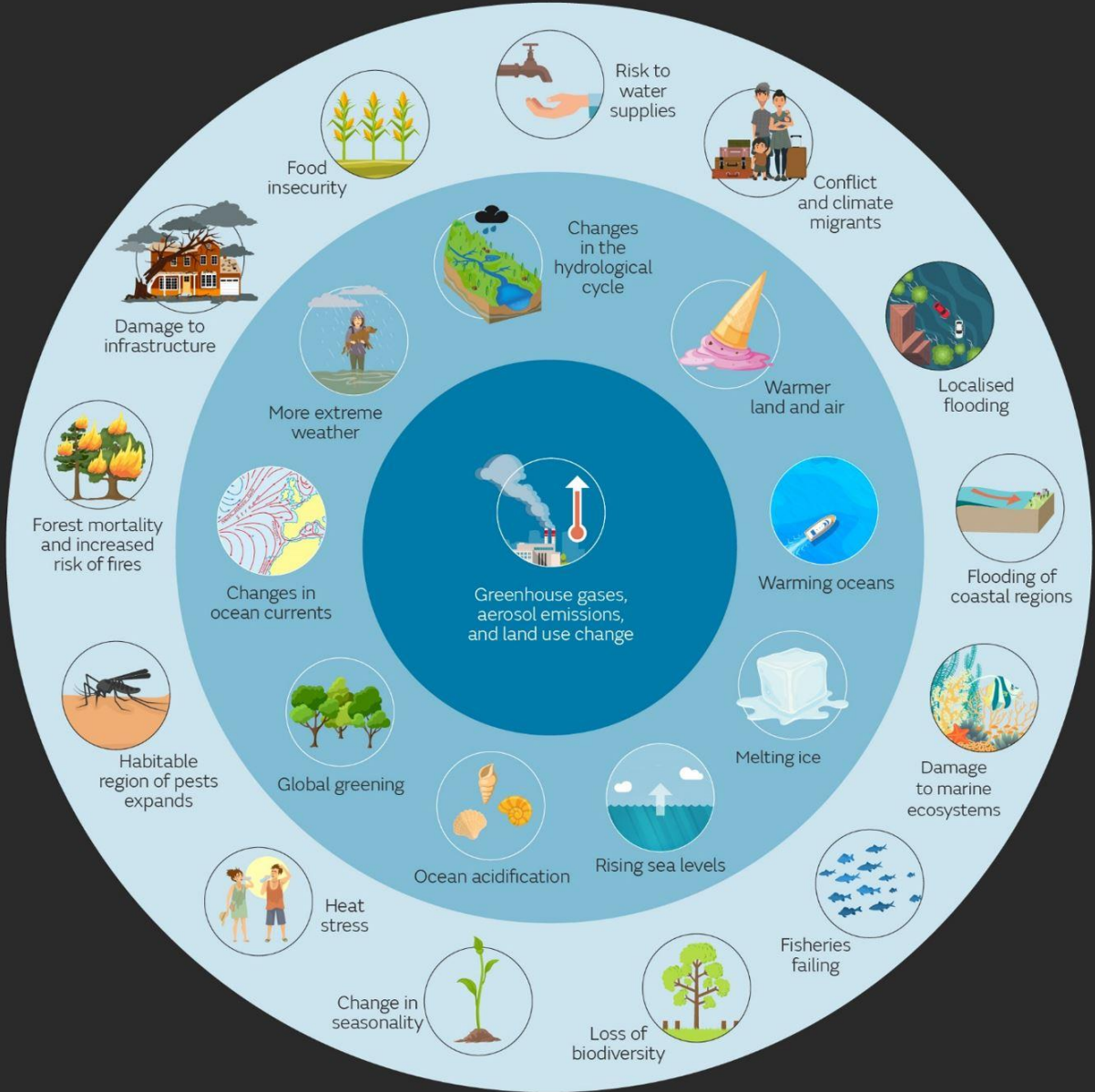
Drivers of climate change



Changes to the climate system



Impacts



Impacts of Climate Change in Bangladesh



For Bangladesh, Climate Change is no longer a theory, but it is something already happening



The major impacts are shown below:

1



Increasingly frequent and severe tropical cyclones

2



Heavier and more erratic rainfall

3



Increasing droughts, especially in drier northern and western regions of the country

4



Sea level rise leads to submergence of low lying coastal areas and saline water intrusion

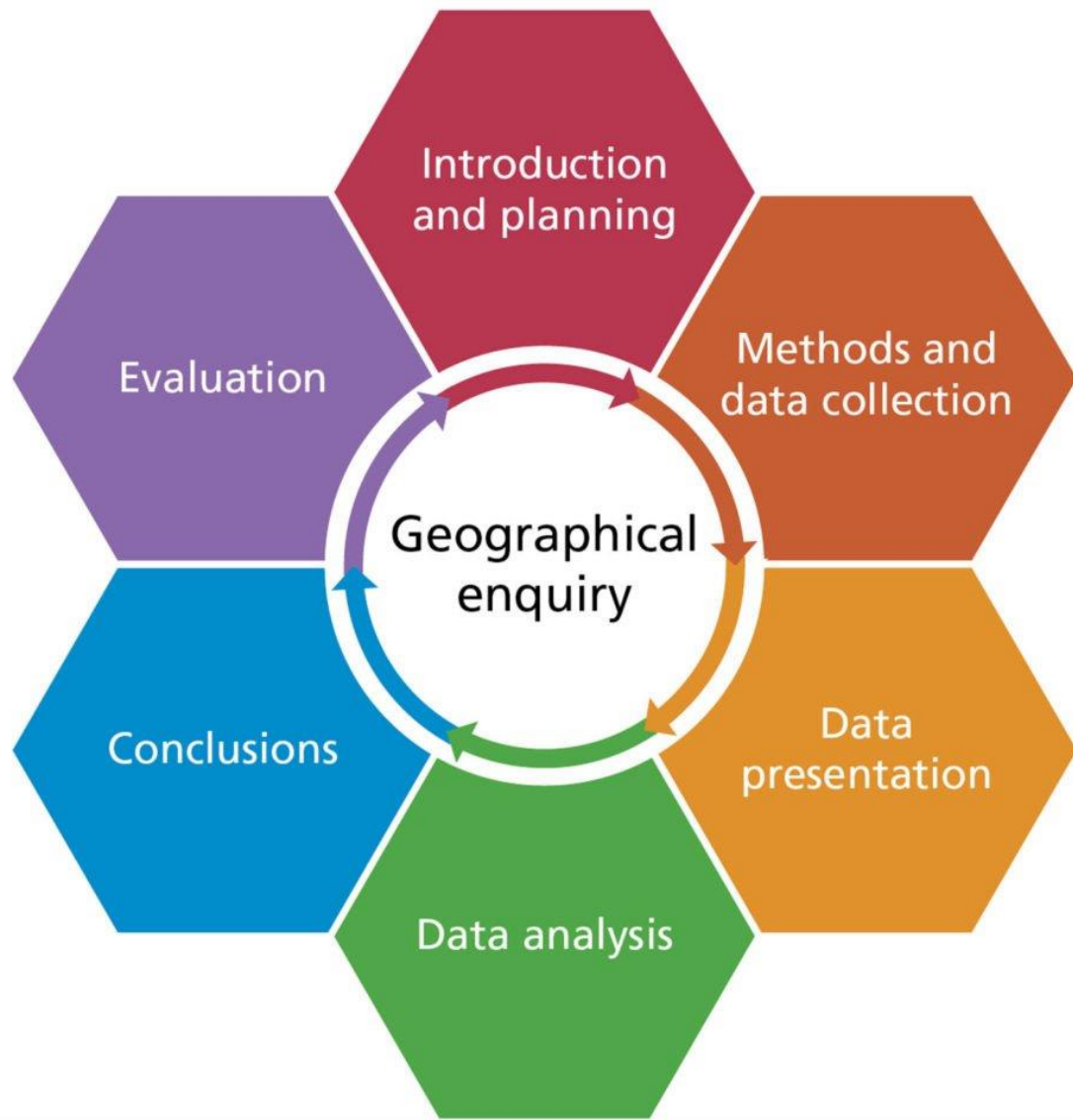
5



Warmer and more humid weather

Mitigation – This means doing things to reduce the amount of greenhouse gases. Examples include walking to school instead of coming in a car, turning off lights, buying foods that produce lower amounts of methane and using low energy light bulbs.

Adaptation – This means making changes so that we can survive the effects of climate change e.g. making sea walls higher, growing crops that can cope with less rainfall, making changes to our homes.



There are lots of things that you can do to find out about what people in Bridport are doing to reduce greenhouse gases.

Make a questionnaire.

Make a map of your road and add a symbol to show which houses have solar panels.

Taking photographs.

Looking at the local newspaper.

Bridport has a Climate Emergency Action Plan
<https://www.bridport-tc.gov.uk/wp-content/uploads/2019/11/Climate-Emergency-Action-Plan-FINAL-v5-following-Full-Council-approval.pdf>