HUMAN ACTIVITIES

Source: Climate Centre

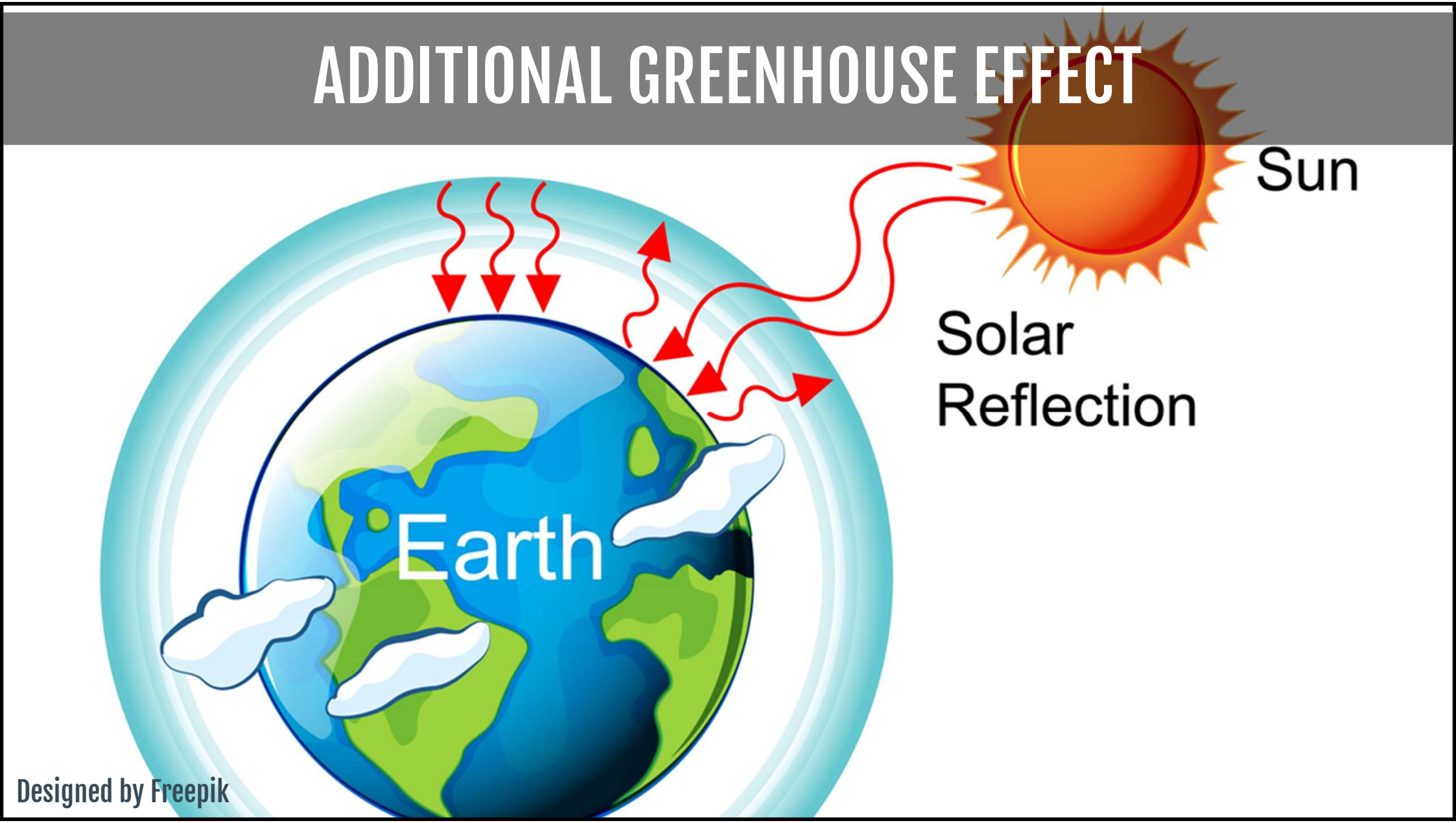
Humans are responsible for increased building constructions, transportation, industry, deforestation, and agriculture, each emitting GHG with carbon dioxide (CO_2) having the biggest part.

JR0

Dia 2

JR0 How about "with carbon dioxide having the biggest part"
Johanna Reiner; 2024-07-10T14:59:11.369

ADDITIONAL GREENHOUSE EFFECT

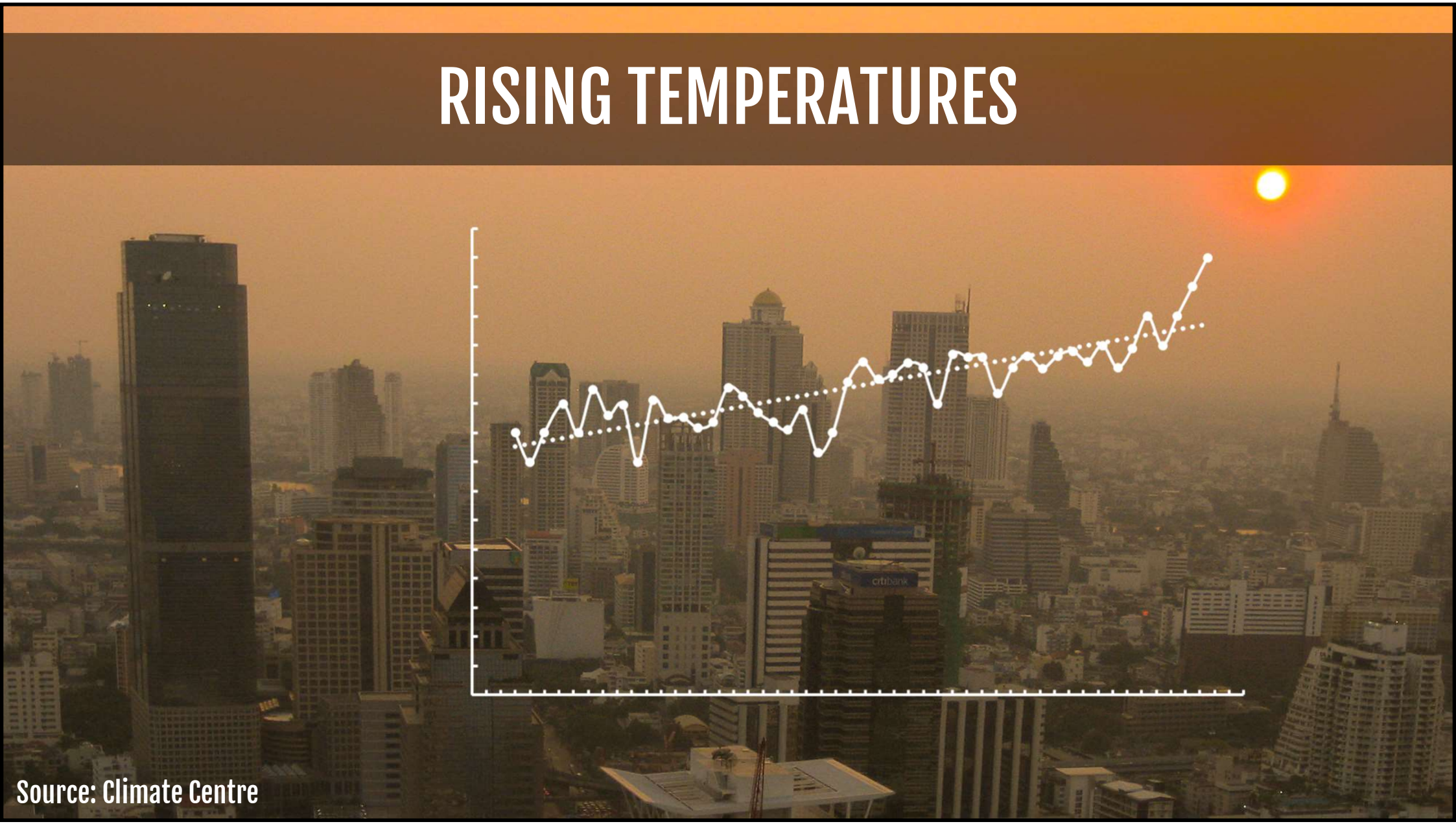


Designed by Freepik

Climate Centre

The natural greenhouse effect traps energy from the sun, heating the world to a liveable temperature. Too much of these gases can cause earth's atmosphere to trap more and more heat. This causes the earth to warm up as the climate gets hotter.

RISING TEMPERATURES



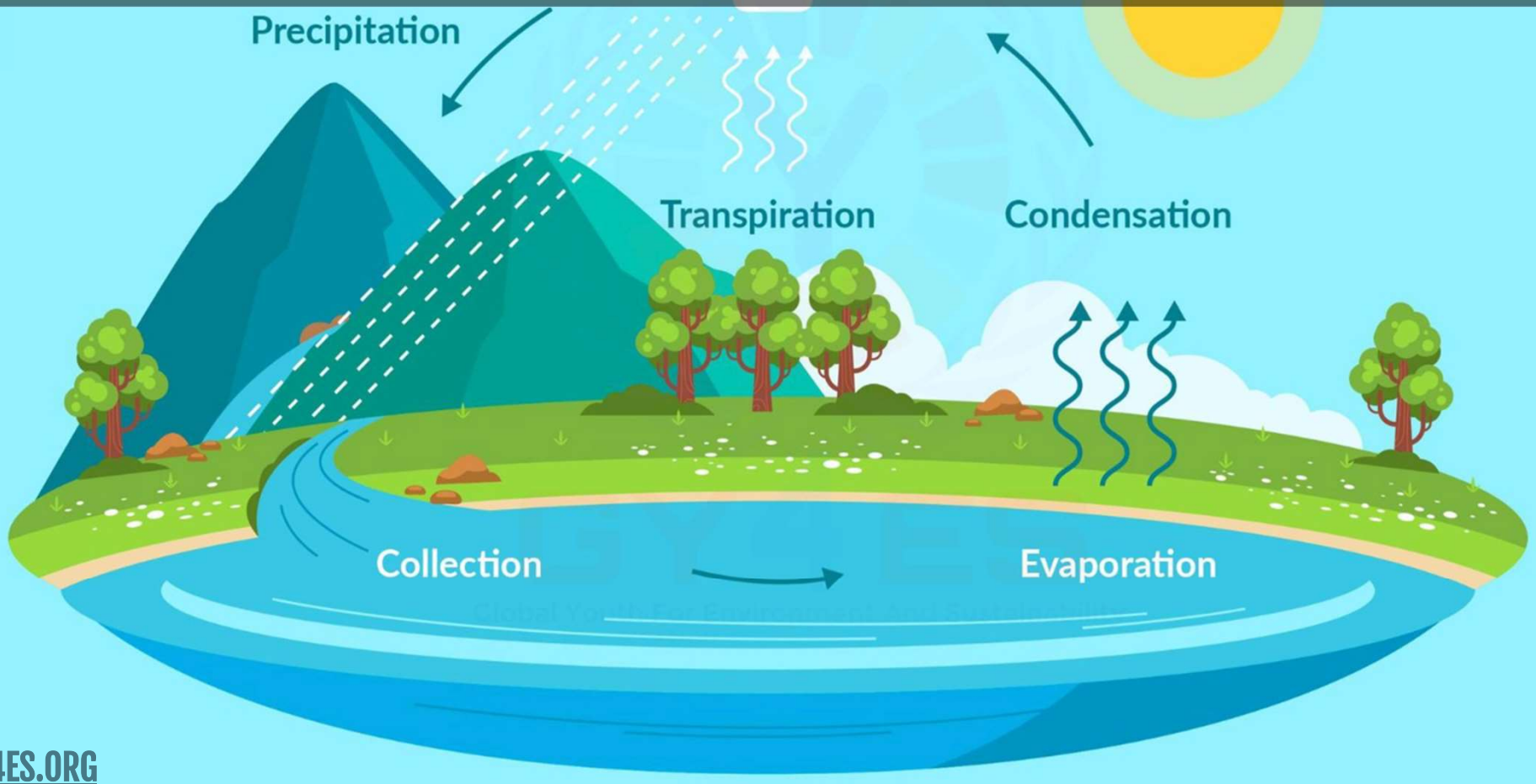
Source: Climate Centre

Climate Centre

Global surface temperatures have on average increased by 1.1°C compared to pre-industrial levels. Pending human emissions, average global temperatures can further increase between 1.1°C and 1.8°C (very low emissions) to 5.7°C (very high emissions) at the end of the 21st century. Certain areas warm faster than other areas.

Source: IPCC, AR6 2023

CHANGING OF THE WATER CYCLE



Source: GY4ES.ORG

Climate Centre

Higher temperatures lead to increased evaporation.
Warmer air can hold more water vapor, impacting the amount of rainfall distribution and changing rainy seasons.


CHANGING SEASONS
Source: Climate Centre & IFRC

Climate Centre

The changing climate is shifting the timing of seasons.
Impacts include erratic rainfall patterns and rainy seasons coming early or late, affecting crop yields and freshwater availability.

EXTREME WINDS AND STORMS

Source: Video grab Nasa, Hurricane Milton

Climate Centre

Warmer and wetter global conditions lead to increased sea surface temperatures, which drive more intense tropical storms, cyclones and hurricanes.

DROUGHTS

Source: Kenya Red Cross Society

Climate Centre

Drought conditions become more frequent, intense, and long-lasting as the water cycle is disrupted. Less rain creates challenges for livelihoods, health and water supply.

FLOODS

Source: Uganda Red Cross Society

Climate Centre

Rainfall patterns are shifting due to changes in the water cycle.
Stronger, unpredictable and more intense rain increases flood risks, amplifying water-borne diseases and population displacement.

HEAT WAVES

Source: Bangladesh Red Crescent Society

Climate Centre

More people are being exposed to higher temperatures for longer durations, increasing heat-related illnesses and mortality.

This affects particularly the most vulnerable such as elderly, women and children.

MELTING GLACIERS AND ICE SHEETS

Source: Climate Centre

Climate Centre

Glaciers across the world are melting at records rates, threatening freshwater resources and contributing significantly to sea level rise.

SEA LEVEL RISE

Source: Climate Centre

Climate Centre

Sea level rise is caused by thermal expansion due to warming of the ocean (water expands as it warms), and increased melting of land-based ice, such as glaciers and ice sheets.

Sea levels have risen by 20 cm since 1900, threatening coastal communities and small-island nations.

OCEAN ACIDIFICATION

Source: Climate Centre

Climate Centre

The oceans absorb CO_2 from the atmosphere which causes the seawater to become more acidic ("sour"). This makes it hard for organisms such as clams and corals to build their shells and skeletons. When these organisms are at risk, the entire food chain in the ocean is at risk – as well as threatening people and economies dependent on fish and shellfish.