

Climate Change fact sheet

What Is Climate Change? The UN defines Climate change as long-term changes in the Earth's temperatures and weather patterns. These changes can happen naturally, but since the 1800s, human activities have been the main cause of the rapid warming we are experiencing today.

Which human activities are the primary drivers of climate change ? The main cause is burning fossil fuels such as coal, oil and gas. These fuels are used to power vehicles, generate electricity and run factories.

Other activities that contribute to climate change include cutting down forests, farming livestock, using fertilizers and dumping rubbish in landfills.

What are greenhouse gases ? Greenhouse gases are gases in the air that trap heat and keep the Earth warm. Without them, our planet would be too cold for life. However, human activities are releasing too much of these gases, causing the Earth to heat up.

How do greenhouse gases warm the Earth? The sun heats the Earth's surface. The Earth then releases some of that heat back into the atmosphere. Greenhouse gases trap part of this heat, preventing it from escaping into space. This is known as the greenhouse effect. As more greenhouse gases build up in the atmosphere, more heat is trapped, causing the Earth's average temperature to rise.

What are examples of greenhouse gases? The main greenhouse gases include:

Carbon dioxide (CO₂): Released by exhausts from petrol and diesel vehicles, burning charcoal or firewood, and generating electricity from fossil fuels.

Methane (CH₄): Released by cows and other livestock, rotting rubbish in landfills, and leaks from natural gas pipelines.

Nitrous oxide (N₂O): Released when farmers use fertilizers on crops and when animal waste breaks down.

Fluorinated gases (F-gases): Used in refrigerators and air conditioners. They can escape into the air through leaks or when equipment is disposed of improperly.

What is the difference between global warming and climate change? Global warming is the long-term rise in the Earth's average temperature. Climate change includes global warming and the wider changes it causes, such as changing rainfall patterns, more intense heatwaves, droughts, floods and rising sea levels.

How do we measure global warming ? Scientists measure global warming by tracking changes in the Earth's average surface temperature over time. They use data collected from weather stations, ocean measurements, satellites and other monitoring systems around the world. Temperatures are compared with a historical baseline, usually the **average for 1850–1900**, before significant industrialization. The difference is expressed in **degrees Celsius (°C)**.

How much has the Earth warmed? According to the World Meteorological Organization (WMO), 2024 was the warmest year on record, with the Earth's average temperature around **1.55°C** above the average for 1850–1900.

What is the Paris Agreement? The Paris Agreement is a global agreement adopted in 2015 to tackle climate change. Countries that participate commit to reducing greenhouse gas emissions and taking action to limit global warming. The Paris Agreement aims to limit global warming to well below **2°C** and pursue efforts to keep it to **1.5°C**. One year above 1.5°C does not, by itself, mean this long-term goal has been permanently exceeded.

How does climate change affect Africa? Many African countries are highly exposed to climate change. Many people depend on farming, livestock and natural resources for their livelihoods, making them vulnerable to changing weather patterns.

Key impacts include:

Droughts that reduce crop yields and cause livestock losses. **Floods** that damage homes, roads, farms and businesses.

Extreme heat that makes outdoor work more difficult and increases health risks.

Water shortages that affect households, agriculture and industries.

Disruptions to electricity generation, particularly where hydropower depends on rainfall and water levels.

How do we address climate change ? There are two main ways to address climate change:

Climate mitigation: Taking action to reduce the causes of climate change. Examples include using solar power, driving less, improving energy efficiency and planting trees.

Climate adaptation: Preparing for the effects of climate change. Examples include harvesting rainwater, growing drought-resistant crops, improving drainage systems and building flood-resistant infrastructure.

Both are important. Mitigation helps limit future warming, while adaptation helps people and businesses cope with its effects.