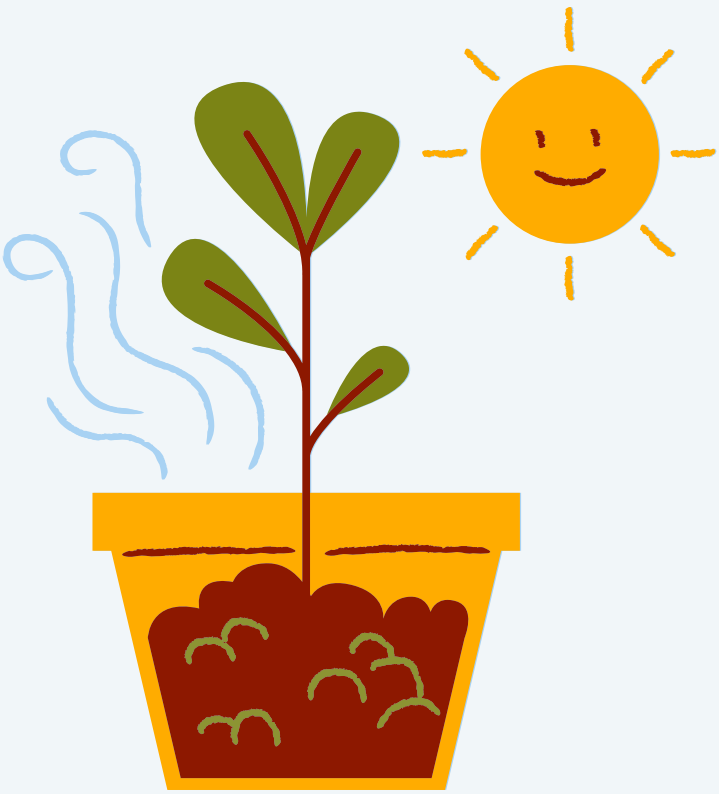
What is climate change? And other climate action definitions

Your guide to climate action



Individuals and communities cannot fix the climate emergency alone because it also needs businesses, industry, national and local governments to take action. However, we can still help by taking our own small and everyday actions, and by pressuring our politicians and services to do more.

This guide is full of definitions on all things to do with climate action and the climate conversation. We hope it is useful and helps you have useful conversations about the climate.

> ***"I try to do everything I can, it is so important that we all learn and do what we can. It's also important to teach our children so that it is second nature to them" - LINKS parent***

https://otbds.org/projects/climate-chat/

The big 4 in Scotland

1 Climate change

The UN defines it as “long-term shifts in temperatures and weather patterns. These shifts may be natural, but since the 1800s, human activities have been the main driver of climate change, primarily due to the burning of fossil fuels (like coal, oil and gas), which produces heat-trapping gases”.

2 Climate action

Climate action refers to the efforts taken to combat climate change and its impacts. This can be reducing greenhouse gases, recycling, using public transport, saving energy, reducing food waste or speaking about and campaigning for change. Climate action is a task for everyone.

3 Net zero/carbon neutral

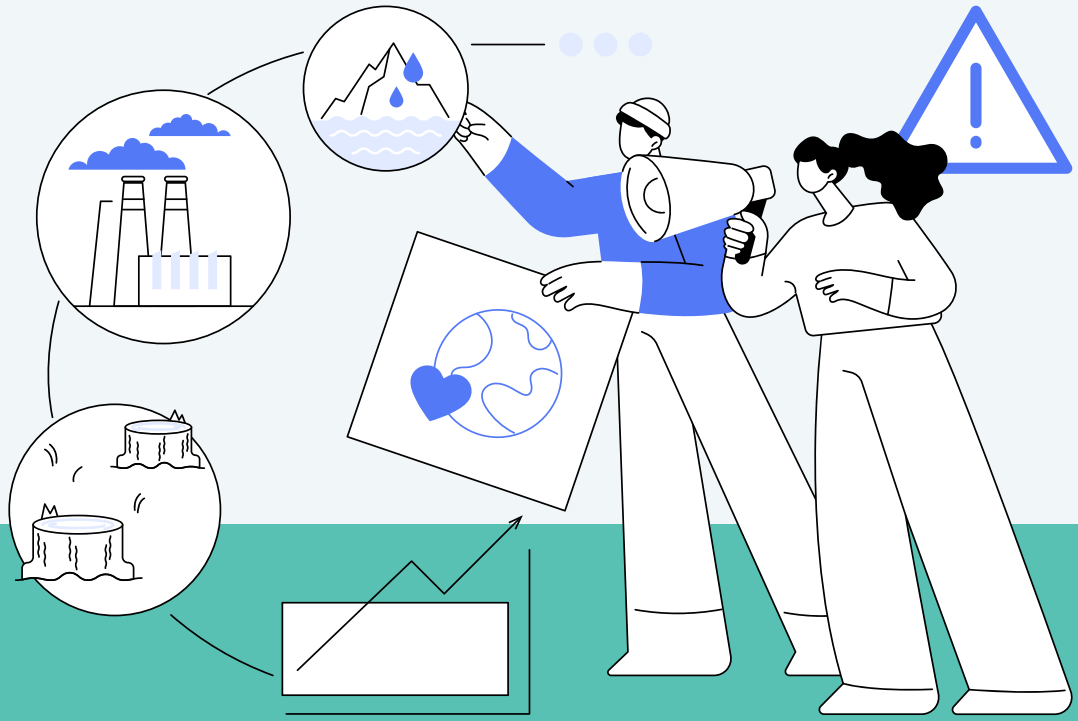
When the amount of CO_2 emissions released on an annual basis is added to the amount taken away. A person, organisation or country is said to be carbon neutral if they balance the CO_2 they release into the atmosphere through their activities with the amount they absorb or remove from the atmosphere.

4 Just Transition

The International Labour Organization (ILO) defines it this way: “Greening the economy in a way that is as fair and inclusive as possible to everyone concerned, creating decent work opportunities and leaving no one behind.”

Useful definitions

Adaptation	The changes in processes, practices and structures to help cope with the effects of climate change - such as building flood defences or switching to drought-resistant crops.
Aerosols	A collection of airborne particles, typically less than 100th of a millimetre in size, that reside in the atmosphere.
Air source heat pump	Air source heat pumps absorb heat from the outside air and use it to heat your property and hot water. They can still extract heat when air temperatures are -15°C or lower.
Carbon footprint	A carbon footprint is a number, often measured in tonnes, kilograms, or grams, that represents the total amount of carbon dioxide (CO_2) and other equivalent greenhouse gases that are associated with an individual, product, person or even country.
Carbon offsetting	The practice of reducing CO_2 or other greenhouse gas emissions made in one area to compensate for emissions elsewhere. This could be planting trees for taking a plane and often involves a company funding a project elsewhere - restoring forests or developing renewable energy, for example.



Useful definitions

Circular economy	A circular economy is part of the solution to our global climate emergency. In a circular economy, materials are valued and not wasted. The flow of materials in a circular economy people 'make, use, and re-make', forming a loop, instead of 'make, use, dispose'. Some businesses are clearly part of the circular economy, but every person and business can be part of it, by returning used materials to places where they can be useful again, and switching to recycled materials.
Climate action	Climate action refers to the efforts taken to combat climate change and its impacts. This can be reducing greenhouse gases, recycling, using public transport, saving energy, reducing food waste or speaking about and campaigning for change. Climate action is a task for everyone.
Climate anxiety	A condition in which someone feels frightened or very worried about climate change.
Climate change	The UN defines it as "long-term shifts in temperatures and weather patterns. These shifts may be natural, but since the 1800s, human activities have been the main driver of climate change, primarily due to the burning of fossil fuels (like coal, oil and gas), which produces heat-trapping gases".
Climate emergency	A climate emergency declaration or declaring a climate emergency is an action taken by governments and scientists to acknowledge that humanity is in a climate crisis. Scotland was the first country in the world to declare a climate emergency in 2019.

Useful definitions

Climate justice	Looking at the climate crisis through a human rights lens instead of a purely scientific one. It puts people and communities most impacted by climate change at the centre.
Carbon capture/ sequestration	Carbon capture is the collection and transporting of concentrated CO_2 gas from places with large amounts of CO_2 emissions, such as power plants. The gas is then injected into deep underground reservoirs to store it. Another name for carbon capture is 'geological sequestration'.
Emissions	Emissions are any release of gases such as CO_2 which cause global warming or harm the environment. Emissions can be small-scale, like the exhaust fumes from a car, or methane from a cow, or larger-scale, like emissions from coal-burning power stations and heavy industries.
Energy transition	Energy transition refers to the global shift from an energy system based on fossil fuels, to producing and using renewable and low-carbon sources of energy. For example, a community or industry's energy transition might involve using less coal and more wind power.
Fast fashion	Clothes produced rapidly by mass-market retailers to follow the latest trends. These are often cheap and not good quality, so they are bought regularly and are often only worn a few times before breaking and being thrown out.
Fossils fuels	Fuels made of biomass, ancient plant and animal matter buried in the earth millions of years ago – leading to the name fossil fuels. They include coal, oil, and natural gas, which create CO_2 when burned.

Useful definitions

Global average temperature	To understand changes in our climate it is essential to know how the planet's surface temperature changes - from month to month, and decade to decade. Global average temperature records provide this vital information. From these records we can see temperatures for specific months, years or decades. Global records go back about 160 years.
Global warming	A rise in the Earth's temperature. The term global warming is often used to mean the observed increase in temperatures since the early 20th century.
Greenhouse gases	Gases in the atmosphere, such as water vapour, carbon dioxide, methane and nitrous oxide. These gases absorb the heat let out by the Earth's surface and atmosphere – most of this heat originally comes from the sun. When the atmosphere around the Earth has too much of these gases, they act like a greenhouse to keep the heat and radiation in – this is called the 'greenhouse effect', and leads to the name greenhouse gases.
Greenwashing	Disinformation produced by an organisation to present an environmentally responsible public image.
Ground source heat pump	Ground source heat pumps absorb heat from underground (which stays at a relatively stable temperature year-round) to heat buildings and water.
IPCC Sixth Assessment	The UN's Intergovernmental Panel on Climate Change. It was created to provide politicians with regular scientific assessments on climate change, its impacts and potential future risks. It also puts forward options for how societies can adapt, to prevent and mitigate damage to the climate.

Useful definitions

Just Transition	The International Labour Organization (ILO) defines it this way: “Greening the economy in a way that is as fair and inclusive as possible to everyone concerned, creating decent work opportunities and leaving no one behind.”
Methane	Methane is a greenhouse gas and its presence in the atmosphere affects the earth's temperature and climate system. Methane is emitted from human influenced activity and natural sources.
Mitigation	Actions to limit global warming by reducing human emissions of greenhouse gases into the atmosphere and reducing their concentrations.
Net zero/ carbon neutral	When the amount of CO_2 emissions released on an annual basis is added to the amount taken away.
Ozone	Most commonly known as the “ozone layer”. This layer in the Earth’s stratosphere occurs naturally and forms a protective barrier around the planet that prevents ultraviolet sunlight radiation from the sun from reaching the Earth's surface and harming plant and animal life.
Paris Agreement	A legally binding international treaty on climate change adopted by 196 parties at COP21 in Paris in 2015. Its goal is to limit global warming to well below 2C, preferably to 1.5C, above pre-industrial levels. Every five years, countries must submit their plans for climate action (NDCs) and in 2020 they had to submit a long-term plan.
Recycling	The process of converting waste materials, that would usually be thrown away, into new materials. At home we usually recycle glass, paper, plastic and tins.

Useful definitions

Renewable energy	Energy from renewable resources that are naturally replenished on a human timescale. Renewable resources include sunlight, wind, the movement of water, and geothermal heat. Renewable energy is often used for electricity generation, heating and cooling. Renewable energy projects are typically large-scale, but they are also suited to rural and remote areas and developing countries, where energy is often crucial in human development.
Solar energy	Solar panels capture the sun's energy and convert it into electricity. Solar panels are usually mounted on top of a roof, but systems can also be installed on the ground or as solar roof tiles.
Upcycling	Taking something you no longer use and transforming it into a new product. Examples can be redesigning clothes to wear in a new way or turning materials into a completely new use like a draught excluder.
UN Sustainable Development Goals	A universal call to action to end poverty, protect the planet and improve the lives and prospects of everyone, everywhere. They were adopted by all UN Member States as part of the 2030 Agenda for Sustainable Development which set out a 15-year plan to achieve the Goals.
Wind energy	Electricity created from the naturally flowing air in the Earth's atmosphere. Its impact on the environment and climate crisis is significantly smaller than burning fossil fuels. In the UK we have offshore and onshore windfarms generating this energy. Communities can benefit in different ways from the windfarms, through grants schemes or shared ownership.

Useful websites for further information

We hope that now you know these definitions you feel confident doing further research and reading on your own. Below is a list of useful organisations and resources from across Scotland working on climate action. You can find more in our resource guide.

Name	Website
Stop Climate Chaos Scotland	https://www.stopclimatechaos.scot/
Scottish Government	https://www.gov.scot/policies/climate-change/
Zero Waste Scotland recycling locator	www.zerowastescotland.org.uk/resources/recycling-locator
Scottish Government Just Transition	https://www.gov.scot/policies/climate-change/just-transition/
Greener Peebles	https://greenerpeebles.org/climate-action/
SCVO	https://climateconfident.scot/
Trainline	https://www.thetrainline.com/via/sustainable-travel-news/how-to-lower-your-carbon-footprint-with-everyday-lifestyle-choices
Abundant Borders	http://abundantborders.org.uk/
Scottish Communities Climate Action Network (SCCAN)	https://www.scottishcommunitiescan.org.uk/
Forestry and Land Scotland	https://forestryandland.gov.scot/what-we-do/climate-emergency

CLIMATE CHAT

An Outside the Box project, funded by the Scottish Government Climate Engagement Fund

Communities committed to climate action

outsidethebox

Scottish Government
Riaghaltas na h-Alba