

A Guide to Climate Change



What is climate change and how will it affect you?

What is causing climate change?

What efforts are being made to tackle climate change?

What is a carbon footprint?

What can you do to help tackle climate change?



What is climate change and how will it affect me?

Climate change is the name given to the change in our climatic patterns, both at a regional and global level, particularly over the last few decades.



In Scotland we expect more extreme weather events, wetter winters and drier summers. This will increase flooding and damage to infrastructure. It will also affect the crops we can grow, our ecosystems and our natural plants and animals. Some of these changes are happening now.

Worldwide we also expect more extreme weather events as well as unpredictable and changing weather patterns resulting in droughts, flooding and disruption to ecosystems.

This will affect global food and water supply, the livelihoods of millions, and will result in climate refugees. Climate change often has the greatest impact on people who have contributed least to causing it and are least able to adapt to it.

Worldwide glaciers and ice sheets are melting and sea levels are rising. Many coastal cities and whole islands are at risk of being flooded by the rise in sea levels.



Why not have a conversation with friends and family about how climate change will affect you?

What is causing climate change?

Naturally occurring greenhouse gases trap heat from the sun, keeping our planet warm enough to sustain life.

Since the industrial revolution humans have increased the amount of greenhouse gases in the atmosphere to their highest level in over 400,000 years. This increase has been caused by activities including:



- Burning fossil fuels such as coal, oil and gas to heat and light our homes, fuel our vehicles and create stuff

- The way we produce food

- Deforestation of trees that absorb greenhouse gases

- Landfilling our waste



More greenhouse gas in the atmosphere means more heat from the sun is being trapped, causing our planet to heat up. This is called global warming and since 1880 global average temperatures have increased by 0.8°C. The global warming of our planet is causing climate change.



17 of the 18 warmest years on record have occurred this century, according to the UN World Meteorological Organisation.

Q Why not try to explain what's causing climate change to a friend?

What efforts are being made to tackle climate change?

Work is underway to cut or prevent the emission of greenhouse gases. This is known as mitigation.

At the United Nations Climate Change Negotiations in Paris an agreement was reached by countries around the world to reduce greenhouse gas emissions to keep average global temperature rise below 2°C, and aim to limit it to 1.5°C.

In 2009 the Scottish Parliament passed the Climate Change (Scotland) Act, which included world-leading climate change policies and targets. On 28 February the Scottish Government published its Climate Change Plan, which outlines strategy to meet a target of a 66% drop in greenhouse gas emissions by 2032 compared with 1990 levels.

To achieve the 66% drop in emissions, there will need to be a large number of changes to our infrastructure and the way we live and work in Scotland by 2032 including:



50% of all energy demand to come from renewables.



15% of domestic warmth to come from low carbon sources.



Increasing planting of trees to 15,000 hectares per year.



At least 10% of all journeys made by bicycle.

Efforts to lower the risks associated with the impacts of climate change are known as adaptation and these include:

- Flood risk management
- Biodiversity action planning
- Urban greening



Read more about the Scottish Government's Climate Change Plan at www.gov.scot/Topics/Environment/climatechange/climate-change-plan

What is a carbon footprint?

Your carbon footprint is the total quantity of greenhouse gases that you create from your day-to-day life through home energy use, the way you travel, what you eat and the stuff you buy.

In Scotland, individuals and households account for over 75% of Scotland's greenhouse gas consumption emissions, (all the emissions for which we are responsible as consumers of goods and services, including those we import into Scotland).¹



Contributions to our consumption emissions in Scotland are made up from:¹

Housing: 32%

How we heat and light our home.

Transport: 30%

How we travel to work, school, for leisure and holidays.

Food: 16%

The food and drink we choose to eat and what we waste.

Stuff: 11%

The things we buy and waste.

Other: 10%



If we all work to reduce our carbon footprints we can reduce the amount of greenhouse gases in the atmosphere and start to tackle global warming and climate change.

¹<http://www.gov.scot/Resource/0053/00532096.pdf>

What can I do to help tackle climate change?

Have a discussion with a friend about how you could make reductions to your carbon footprint to help tackle climate change. Reducing your carbon footprint could save you money and be good for your health!

Tick the actions you are already taking. Is there more you could do?



Additional benefits:
Saves money on energy bills.

Reduce your home energy use



Install a more efficient heating system

Install draught proofing and insulation

Turn thermostat down by 1°C

Switch lights off when not in a room

Carry out a home energy audit



Additional benefits:
Improved diet, health benefits of gardening, saves money.

Eat local and seasonal



Buy local fruit and vegetables that are in season

Avoid food waste

Grow your own food



Additional benefits:

Can improve fitness, reduce stress and saves money.

Greener travel



Fly less

Enjoy activities close to home

Walk or cycle instead of car travel

Use public transport instead of the car

Car share

Drive efficiently



Additional benefits:

Saves money.

Reduce, reuse and recycle



Cut down the stuff you use

Consider buying second hand

Find new uses for items rather than throwing out

Recycle items at the end of their life



Read more about ways to take climate action at:
www.keepsotlandbeautiful.org/ccclimatechange

Saving the world isn't just for the movies

Greener Scotland have produced a series of films showing easy ways to help fight climate change, with further hints and tips on how to go greener in 2018. Find out more at:

www.greenerscotland.org

The Climate Challenge Fund is a Scottish Government grant programme managed and administered by Keep Scotland Beautiful. We provide support, resources and training to support community groups taking action on climate change.

The carbon emissions generated by printing will be offset by planting broadleaved trees in a local community woodland.



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