

What is the climate crisis?

Climate change refers to the long-term changes occurring in the Earth's temperature and weather patterns. While some changes are natural, the world is now warming faster than at any point in history, due to our release of greenhouse gases into the atmosphere. Gases such as CO₂ and methane trap heat — like the glass of a greenhouse — causing global temperatures to rise.

In 2015, world governments agreed the need to limit global warming to well below 2°C. The chosen target of 1.5°C above pre-industrial levels (1800s) matters. At 1.5°C, climate risks are serious, but more manageable. At 2°C or more, the risks increase sharply, likely seeing:

- Heatwaves becoming deadly for millions more people,
- Crop failures and water shortages becoming much worse,
- Sea level rises that threaten many coastal cities, including Glasgow and Edinburgh,
- The loss of coral reefs.

Global temperatures have continued to increase. 2024 was the warmest year on record, at 1.6°C above pre-industrial average levels. The rate of increase is unprecedented, reaching 0.26°C per decade over 2014 to 2023 ([Climate Change Committee, 2025](#)).

Higher levels of warming also require a larger need for CO₂ removal measures and net negative emissions to bring temperatures back down. Many of these technologies are not yet proven at scale and have uncertain costs and large implications for energy systems.



Impact on West Dunbartonshire

Climate change is already having an impact on West Dunbartonshire. We've seen hotter summers, wetter winters, more extreme storms and increased levels of flooding.

The Met Office suggests that by the 2050s, we could see summer temperatures increase by 4-5°C, and 40-60% more rainfall in winter. In addition, the sea level is due to rise between 0.56-1.12 metres – putting areas of Clydebank and Dumbarton at risk.

Want to know more?

Climate Ready Clyde has produced a climate vulnerability map for West Dunbartonshire, which you can find together with other resources by following the links below.



For more information:

Climate Ready Clyde - Climate Vulnerability Map:

<https://climatereadyclyde.org.uk/climate-vulnerability-map/>

West Dunbartonshire Climate Change and Strategy: <https://www.west-dunbarton.gov.uk/council/key-council-documents/plans-and-strategies/sustainable-development/climate-change/>

Circular Glasgow - How to develop an environmental policy:

<https://www.circularglasgow.com/acts/community-outreach-and-charity/policies/>

Adaptation Scotland – resources to embed adaptation and climate resilience into your organisation: <https://adaptation.scot/take-action/>

Business Energy Scotland – support setting up a Green Team within your organisation:

<https://businessenergyscotland.org/guides/green-team-set-up/>

The Schumacher Institute – community climate action toolkit:

<https://schumacherinstitute.org.uk/community-climate-action-toolkit/>