CLIMATE METRICS · FREE FACT SHEET

Explainers

Key figures · Updated 27 November 2026 · 7 pages summarised · climatemetrics.org

The headline figures from every Explainers page on Climate Metrics, taken from each page as it is published today. Every figure keeps the source and date given on its page: follow the links for full context, charts and citations.

What does +1.5°C actually mean?

Figures as of Sep 2026 · Page updated 2 Sep 2026

It's probably the single most-repeated number in climate reporting, and one of the most widely misunderstood. It isn't a forecast of how much hotter your city will feel. It isn't a number we cross once and stay past.

~1.4°C	Current best estimate of long-term global warming above pre-industrial levels
91%	WMO-estimated chance at least one year in 2026–2030 temporarily tops 1.5°C

Full page, charts and sources: climatemetrics.org/what-does-1-5c-actually-mean

How Is Atmospheric CO2 Measured?

Figures as of Sep 2026 · Page updated 14 Sep 2026

Every "CO2 is now at 430 ppm" headline rests on a surprisingly small, tightly disciplined global measurement system — some of it running continuously since 1958.

~430 ppm	Approximate current atmospheric CO2 level (2026), vs 288 ppm pre-industrial
~0.1 ppm	Typical precision of a modern in-situ CO2 analyzer
~140	Surface sites in NOAA's Global Greenhouse Gas Reference Network
800,000 yrs	Span of the CO2 record reconstructed from Antarctic ice cores

Full page, charts and sources: climatemetrics.org/how-is-atmospheric-co2-measured

Milankovitch Cycles

Page updated 27 Sep 2026

Every few tens of thousands of years, subtle changes in the shape of Earth's orbit, the tilt of its axis, and the direction that axis points shift how sunlight is distributed across the planet's surface and seasons — without changing the total amount of energy Earth receives from the Sun.

~100,000 yr	Dominant eccentricity cycle governing the last ~1 million years of ice ages
~41,000 yr	Obliquity (axial tilt) cycle
~23,000 yr	Precession (axial wobble) cycle

11,700 yr	Ago the current interglacial (the Holocene) began

Full page, charts and sources: climatemetrics.org/milankovitch-cycles

Climate Predictions

Figures as of Sep 2026 · Page updated 2 Sep 2026

This page combines two things this site has covered separately: the specific, dated predictions that didn't come true (see our dedicated Failed Predictions page), and a matching set of specific, testable predictions that were confirmed by later observations — mostly not headline-grabbing dates from politicians and pundits, but…

29	Total predictions/claims scored on this page
4	Mixed or partially-confirmed cases that don't sort cleanly into either bucket
10	Confirmed — direction and rough magnitude matched observations
15	Failed — did not occur as stated, or was retracted

Full page, charts and sources: climatemetrics.org/climate-predictions

Also in this section

Climate Glossary & FAQ

A plain-English reference for the acronyms and technical terms used across this site — ONI, RCP, AMOC, NDCs, and more — plus answers to the questions we get asked most about how to read the numbers.

Read: climatemetrics.org/climate-glossary-faq

Climate Change Challenges

Climate change is overwhelmingly associated with serious environmental, economic and social risks. Rising temperatures, sea-level rise and changes in extreme weather threaten communities and ecosystems around the world.

Read: climatemetrics.org/climate-change-challenges

Perfect World Fallacy

The fact that the climate is changing does not, by itself, establish that the change is harmful. Harm has to be demonstrated, quantified and weighed against benefits, costs and our ability to adapt.

Read: climatemetrics.org/perfect-world-fallacy