

Key indicators of global climate change 2025: What's changed since AR6?

Human induced warming is increasing at a rate of about 0.27°C per decade, the result of greenhouse gas emissions being at an all-time high over the last decade, as well as reductions in the strength of aerosol cooling.

Key greenhouse gas concentrations

	AR6	Now
CO ₂	410.1 ppm	425.6 ppm
CH ₄	1866.3 ppb	1936.3 ppb
N ₂ O	332.1 ppb	339.4 ppb

Effective radiative forcing

AR6:	2.72 W m ⁻²
Now:	3.10 W m ⁻²

Earth's energy imbalance

AR6:	0.79 W m ⁻²
Now:	1.12 W m ⁻²

Total greenhouse gas emissions

2010-2019 average: 53.5 GtCO₂e
2015-2024 average: 54.6 GtCO₂e

Remaining Carbon Budget for 1.5°C (50% likelihood)

AR6: 500 GtCO₂
(from start of 2020)
Now: 130 GtCO₂
(from start of 2026)

Human-induced warming

AR6: 1.07 °C
Now: 1.24 °C

Marine heatwave days

AR6:	36
Now:	58

Land average maximum temperature change

AR6:	1.55 °C
Now:	1.92 °C

Global mean sea-level rise

1901-2018 change: 201.9mm at a rate of 1.73mm yr⁻¹
1901-2025 change: 229.6mm at a rate of 1.85mm yr⁻¹

Change in global mean surface temperature

AR6:	1.09 °C
Now:	1.26 °C

