



Climate change



NSW will be warmer, the sea surface warmer and sea levels higher owing to climate change.

Climate change is an urgent global issue.

Certain human activities, such as burning fossil fuels, emit greenhouse gases. The accumulation of greenhouse gases in the atmosphere leads to increasing land temperatures, warmer sea surface temperatures, and rising sea levels.

Aboriginal peoples gain insight into climate shifts by monitoring seasonality over long periods. This enables adaptation and supported survival over millennia.

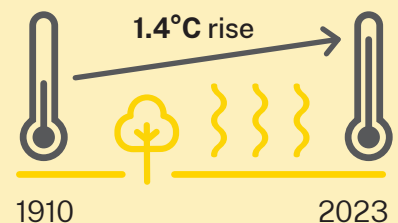
At a glance

How NSW is tracking

- NSW average surface temperatures over land have risen 1.4°C since national records began in 1910.
- Several climate drivers, such as El Niño and La Niña, contribute to the State's seasonal rainfall, which makes it difficult to establish clear trends.
- In NSW, sea level rose by 12 centimetres between 1991 and 2023 and is projected to rise by up to one metre by the end of the 21st century.
- Sea surface temperatures in the Sydney area have increased by about $0.14\text{--}0.2^{\circ}\text{C}$ per decade since the 1950s.

Land temperature

The average surface temperature over land in NSW has risen by 1.4°C since 1910



Sea level

In NSW, sea level rose **12cm** between 1991 and 2023



The big picture

Average global temperatures in 2014–23 have already risen by a range of $1.06\text{--}1.30^{\circ}\text{C}$ above pre-industrial levels (1850–1900). The increase is projected to exceed $2.2\text{--}3.5^{\circ}\text{C}$ by the end of this century if further action is not taken to limit greenhouse gas emissions.












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NSW status and trend indicators

These indicators report on NSW Government monitoring. They reflect the global nature of climate change, and enable comparison between countries.

Indicator	Environmental status	Environmental trend	Information reliability
Annual mean land temperature	 MODERATE	 Getting better Stable Getting worse	 Good
Sea level rise	 MODERATE	 Getting better Stable Getting worse	 Good
Sea surface temperature	 POOR	 Getting better Stable Getting worse	 Good

Indicator table scales

- **Environmental status:** Good, moderate, poor, unknown
- **Environmental trend:** Getting worse, stable, getting better, unknown
- **Information reliability:**  Good  Reasonable  Limited