

# Climate Outlook 2026

Centre for Sustainable Development Reform | Public Briefing

## Global Temperature Trajectory

Global mean surface temperature continues to track above the 1.5°C threshold established by the Paris Agreement.

- 2025 annual mean: +1.58°C above pre-industrial baseline
- 2026 Q1 projection: +1.62°C (record Southern Hemisphere quarter)
- Trend: 0.04°C per year acceleration over the past decade
- IPCC AR6 high-emissions pathway alignment confirmed

## Australian Impact Assessment

Climate impacts are intensifying across key sectors of the Australian economy.

- Heatwave frequency: 40% increase in days above 40°C since 2000
- Rainfall variability: South-eastern agricultural zones 18% below long-term average
- Bushfire season: Extended by 6 weeks compared to 1990–2010 baseline
- Marine ecosystems: Great Barrier Reef experienced fourth mass bleaching in seven years

## Sector Risk Summary

Sector	Risk Level	Key Exposure	Trend
Agriculture	High	Drought, heat stress	Worsening
Coastal infrastructure	High	Sea-level rise, storm surge	Worsening
Energy	Medium	Peak demand, grid stability	Stable
Health	Medium	Heat-related illness, vector-borne disease	Worsening
Water resources	High	Supply variability, quality degradation	Worsening

## 2026 Research Agenda

Priority research streams for the Centre in 2026:

1. Adaptation finance mechanisms — Cost-benefit analysis of state-level adaptation investment
2. Agricultural resilience modelling — Crop yield projections under RCP 4.5 and RCP 8.5
3. Coastal retreat policy — Economic analysis of managed retreat versus protection
4. Health system preparedness — Heat-health early warning system evaluation