

2013 State Report Card

How good is the scientific understanding of the causes and consequences of climate change?

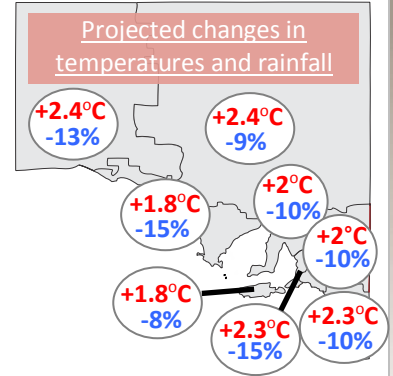
In 2012–13, Australia experienced its hottest summer, hottest month, hottest day and longest heatwave. In the same year, atmospheric carbon approached 400 parts per million—40 per cent higher than 100 years ago and a level not seen for millions of years.


In South Australia, average temperatures are projected to increase by about 2 degrees by 2070 (map on right). We can also expect longer and hotter heatwaves, which will result in increased heat-related illness, hospital admittance and mortality rates.

Rainfall is projected to decrease by up to 15 per cent by 2070 (map on right). Without careful planning this will affect our drinking water supplies and our primary industries.

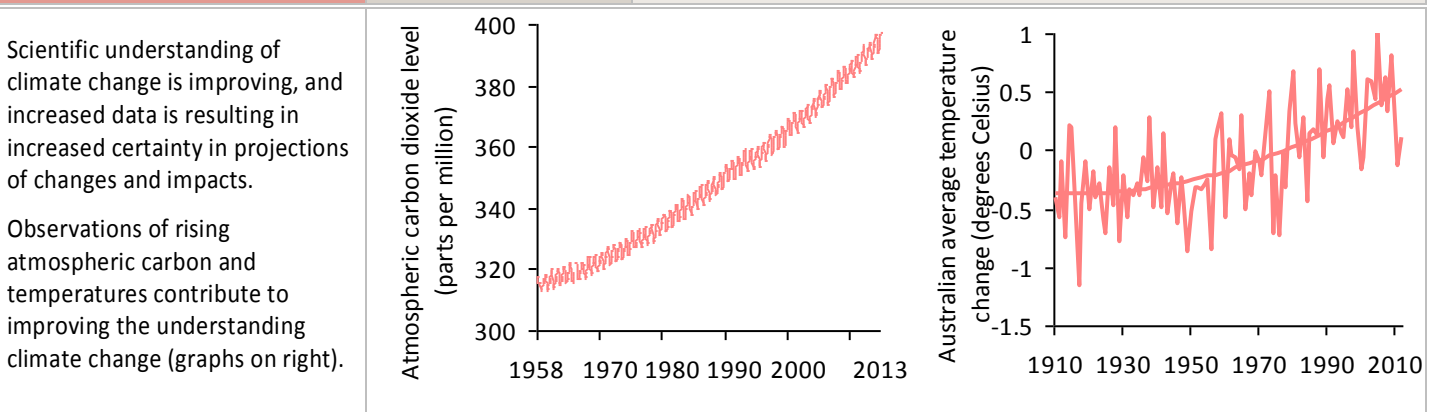
Increasing temperatures and decreasing rainfall are likely to degrade the habitats of some native plants and animals and improve conditions for some pest animals and weeds.

Sea levels around South Australia have been rising by almost 5 millimetres each year. By 2100, sea levels could be 1.1 metres higher than in 1990, potentially affecting 60,000 coastal buildings and 6763 kilometres of roads and other assets, valued at over \$45 billion.



 **State target**
Improve capacity to respond to climate change

Trend (1990–2013)	Getting better	Scientific understanding of the causes and the projected impacts of climate change is improving
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Where we are at (2013)	Good	Research is focused on understanding the consequences of climate change to help us plan and adapt
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The warming of the climate is unequivocal and human influence on the climate system is clear. Research is currently focused on improving our understanding of the consequences of climate change to help plan for potential impacts and help us adapt.

Policies, such as those under the Climate Change Adaptation Framework, are being developed to help South Australians prepare for the projected changes to our climate.

Reliability of information	★★★★★	Excellent
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Further information:
[Technical information for this report card](#)
[Bureau of Meteorology data and information on Climate Change](#)

