



National Climate and Water Briefing Series

24 January 2013

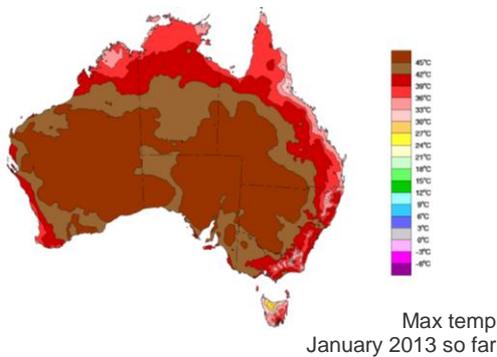
The climate of Australia in 2012 was a 'year of two parts' – cooler and wetter to start, then becoming drier and warmer. The beginning of 2013 has been dominated by a national heatwave. Outlooks for rainfall and temperature are mixed, with increased rainfall for western and northeastern parts of the country. Low or near median streamflows are forecast for most sites in Victoria, New South Wales and Queensland. Bushfire risk remains very high while tropical cyclone numbers are expected to be below average.

2012 Australian climate

- Annual rainfall 476 mm, 11 mm above average
- Much wetter first 3 months, the remainder drier
- Annual mean temperature was 0.11 °C above average
- Year started cool, and finished very warm

Heatwave

- 2013 starts with an unprecedented heatwave
- Over 70 per cent of the continent recorded temperatures in excess of 42 °C

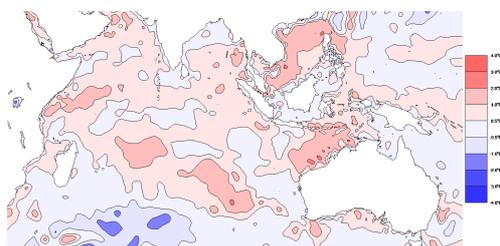


Climate drivers

- Neutral El Niño-Southern Oscillation (ENSO) conditions prevail in the tropical Pacific Ocean



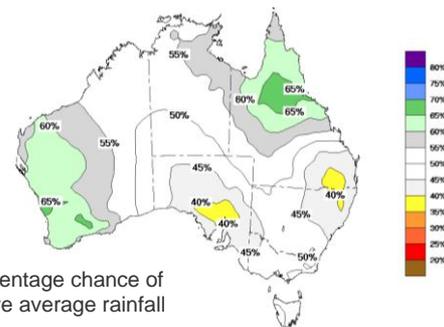
- Eastern Indian Ocean remained much warmer than average during December



Climate outlook for February–April 2013

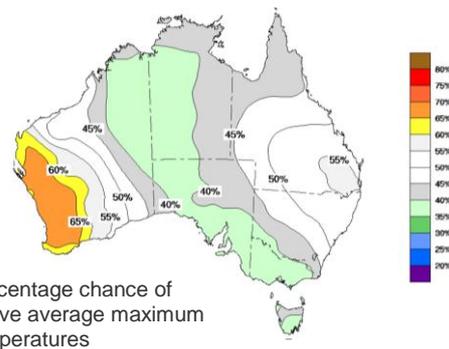
Rainfall

- Wetter season likely for parts of the west and east of Australia
- Drier than normal conditions likely for a small region in eastern Australia and South Australia



Temperature

- Cooler days and nights favoured for the southeast, warmer for the west



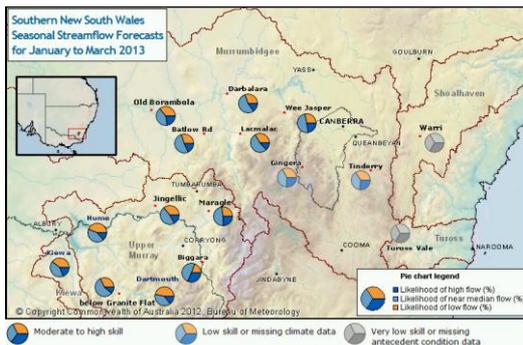
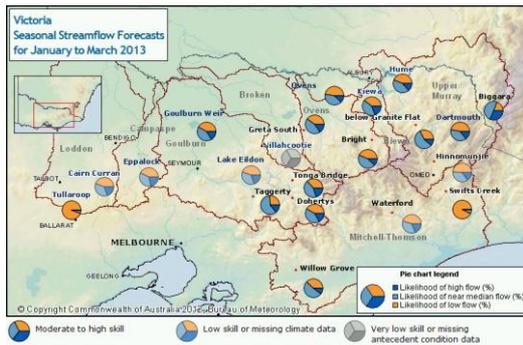
Soil moisture

- Upper layer soil moisture above average in Western Australia and parts of Northern Territory, average to very much below average for the rest of the country
- Lower layer soil moisture very much above average for central Australia, average to very much below average for southern and far northern parts

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Streamflow outlook January–March 2013

- Low or near median flows more likely in Victoria, New South Wales and Queensland



Contact

Gary Allan, Senior Climate Liaison Officer
02 6232 3550 or 0409 760 883
g.allan@bom.gov.au

More information

Rainfall and temperature outlook
www.bom.gov.au/climate/ahead
Seasonal streamflow forecasts and Water Storage
www.bom.gov.au/water

Severe weather update

Summary of events

- Severe thunderstorms in Brisbane 16–17 November
- National heatwave in late December and first half of January
- Extreme–catastrophic fire weather conditions in most states
- Four tropical cyclones



Brisbane storms November



Bushfire damage Dunalley, Tasmania

Recent weather trends

- Late monsoon onset – lack of moisture over continent
- Lack of strong frontal activity in the south
- Continued warm ocean temperatures to the west
- Dry underlying terrain
- Warming over vast parts of central Australia leading to record temperatures

Severe weather forecast

- Bushfire – high risk of grassland fires, and without significant rain, increasing risk of more forest fires
- Tropical cyclones – may be a further burst in March
- Severe storms – continued subdued activity likely