Climate Outlook

Northern Fire Managers Forum
Darwin, Northern Territory
3-4 April, 2019

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2018 fire season outlook

Average fire potential for most areas:
• High fuels in west
• Impact of TC Marcia and Debbie in Queensland
• Average across NT
2018 season: warm days and near average nights

Maximum temperature deciles
May to September (+1.24°C)

Minimum temperature deciles
May to September (-0.23°C)
Seasonal rainfall deciles: Early start and very dry

Rainfall deciles
May - September 2018

September 2018 NDVI anomaly
Cumulative FFDI (no GFDI yet): Fire season

FFDI deciles
May - September 2018

Jun - Aug seasonal outlook 2018
Bushfire weather and a warming planet

Trends in dry season Forest Fire Danger Index (FFDI) (1950-2018)

Northern Australia dry season FFDI

Northern Australia FFDI (May-September)

\[ y = 2.9009x + 2991.1 \]
Southern and Northern fire seasons overlapped (again)

Agnes Water, 26 November (ABC)

Albany. 25 May 2018

Bega Valley, 15 August (ABC)
Rainfall: Monsoon season and the dry (so far)

October 2018 to March 2019

April - May 2019
Recent NDVI: March & May 2019

March 2019 NDVI anomaly

May 2019 NDVI anomaly
Temperatures: Exceptionally warm days

Maximum temperature deciles
April 2018 to Mar 2019 (+1.84°C, highest)

Minimum temperature deciles
April 2018 to Mar 2019 2018 (+0.85°C)
El Niño watch → 70% probability of an event

Model forecasts show El Niño conditions most likely

Model forecasts for IOD and El Niño
El Niño impacts (composites since 1970s)

Winter-spring rainfall and maximum temperatures

Maximum T

Rainfall

Australian Government
Bureau of Meteorology
April-June rainfall outlook
April-June maximum temperature outlook

Chance of exceeding the median maximum temperature
April to June 2019

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Model run: 23/03/2019
Issued: 26/03/2019
Model: ACCESS-S1
Base period: 1960-2017
Summary

• Very poor monsoon across much of the north, and locally record dry
• Late cyclones (Trevor and Veronica) brought locally heavy rainfall
• Pacific currently near El Niño, with further development likely
• Preliminary outlooks:
  • Rainfall mixed, but unlikely to have much impact in north
  • Above average temperatures almost everywhere
  • Likely that the northern fire season will again extensively overlap with that in the south