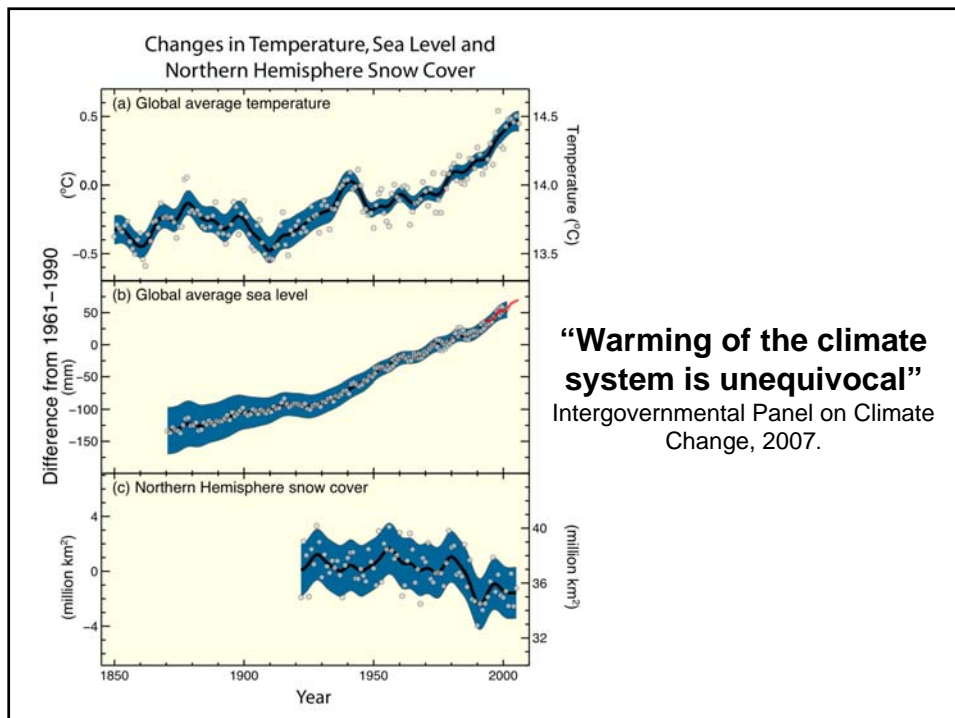


# Climate and Australian bushfires

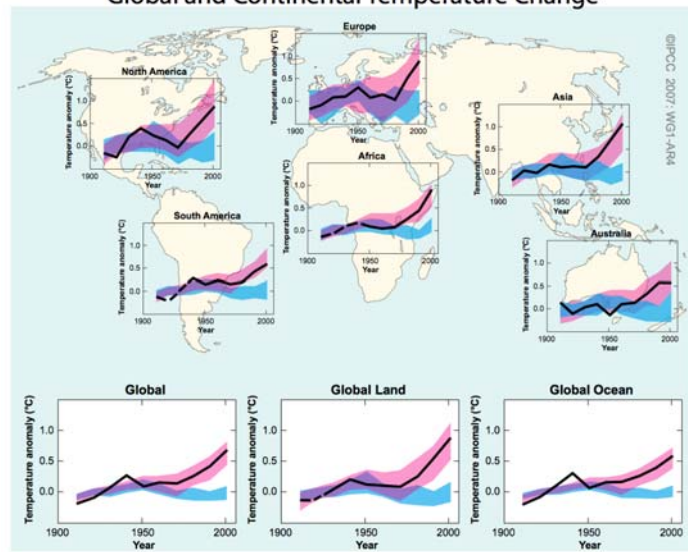
*Neville Nicholls*

School of Geography and Environmental Science  
Monash University

Canberra, 27 February 2007

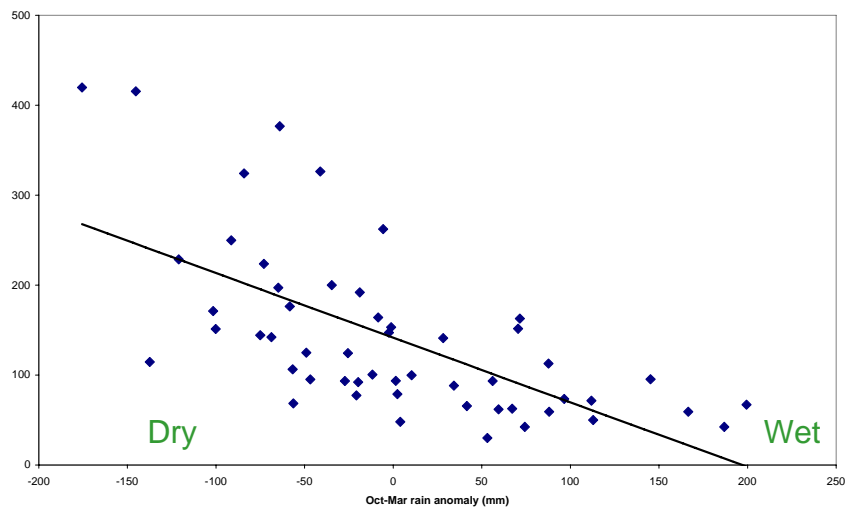


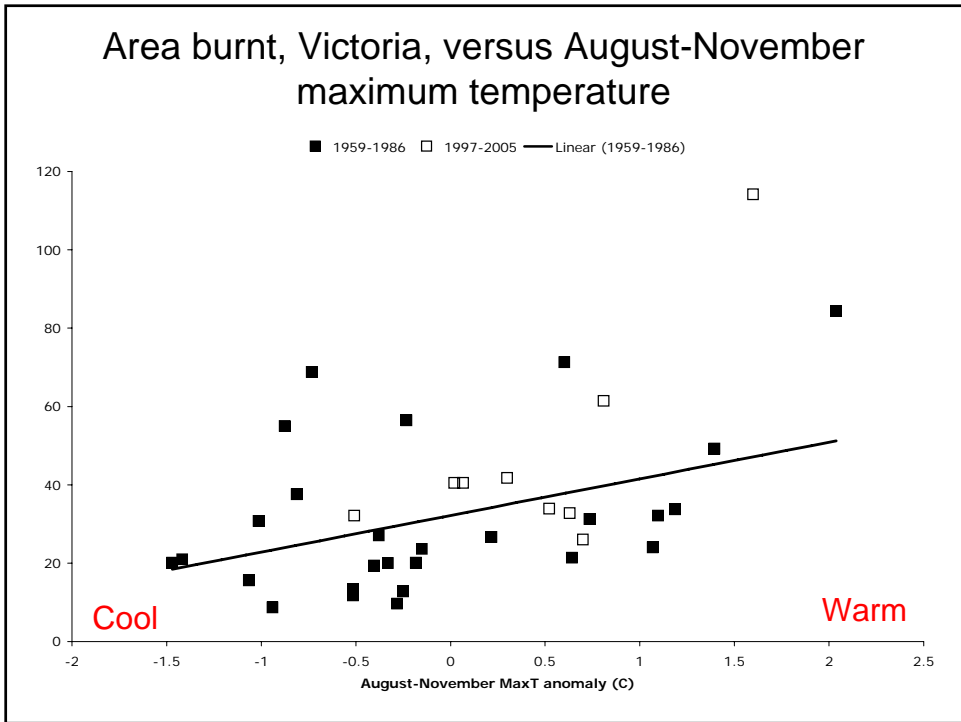
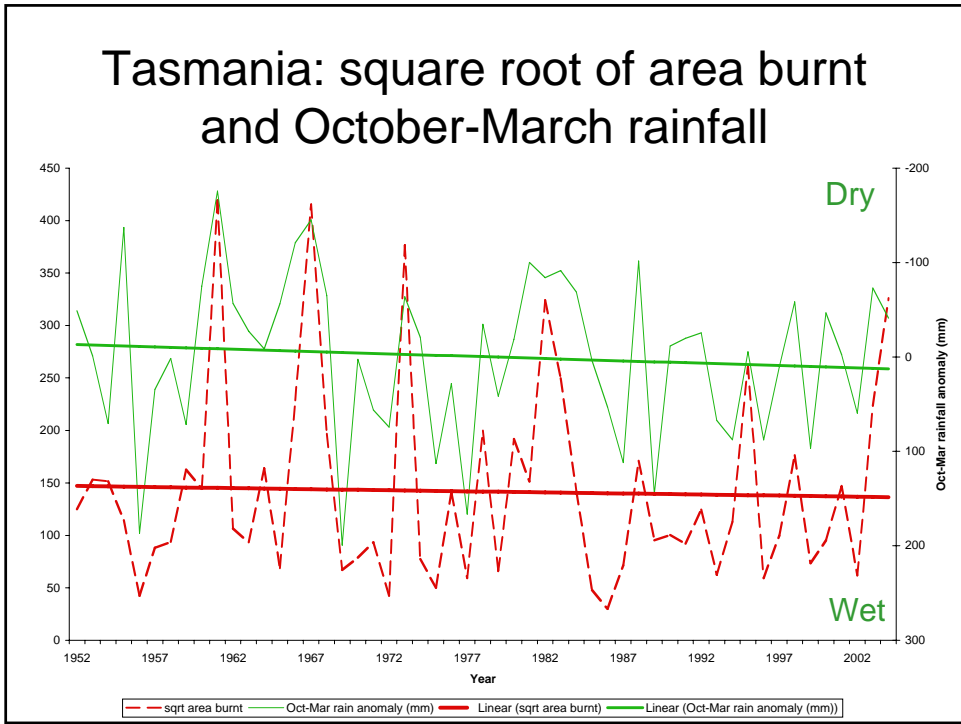
### Global and Continental Temperature Change



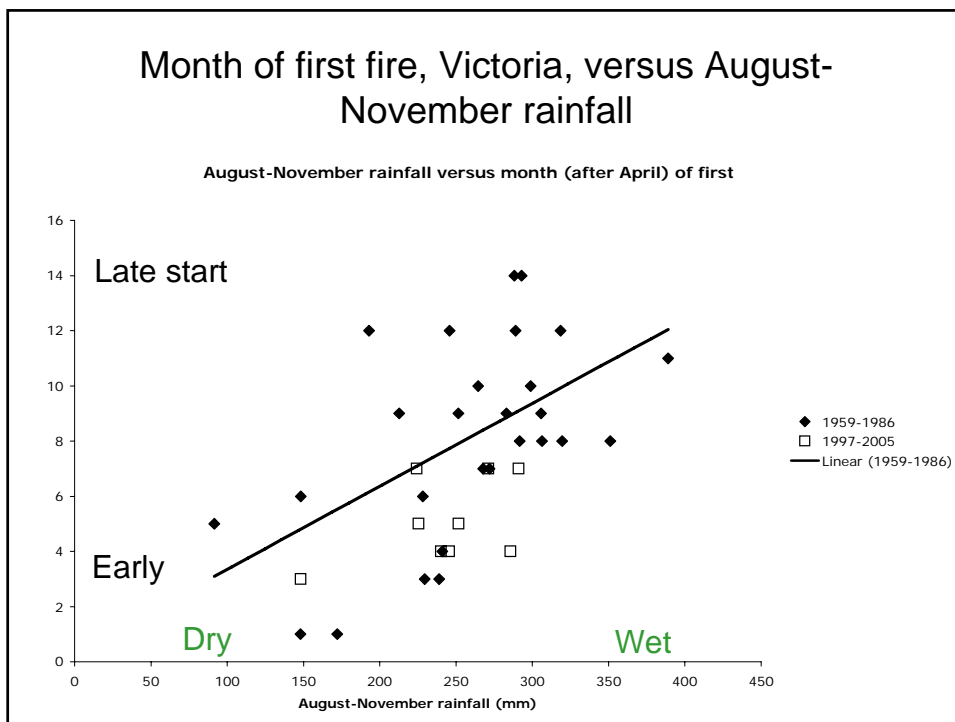
“Most of the observed increase in globally averaged temperatures since the mid-20th century is very likely due to the observed increase in anthropogenic greenhouse gas concentrations”

### Tasmania: square root of area burnt versus October-March rainfall

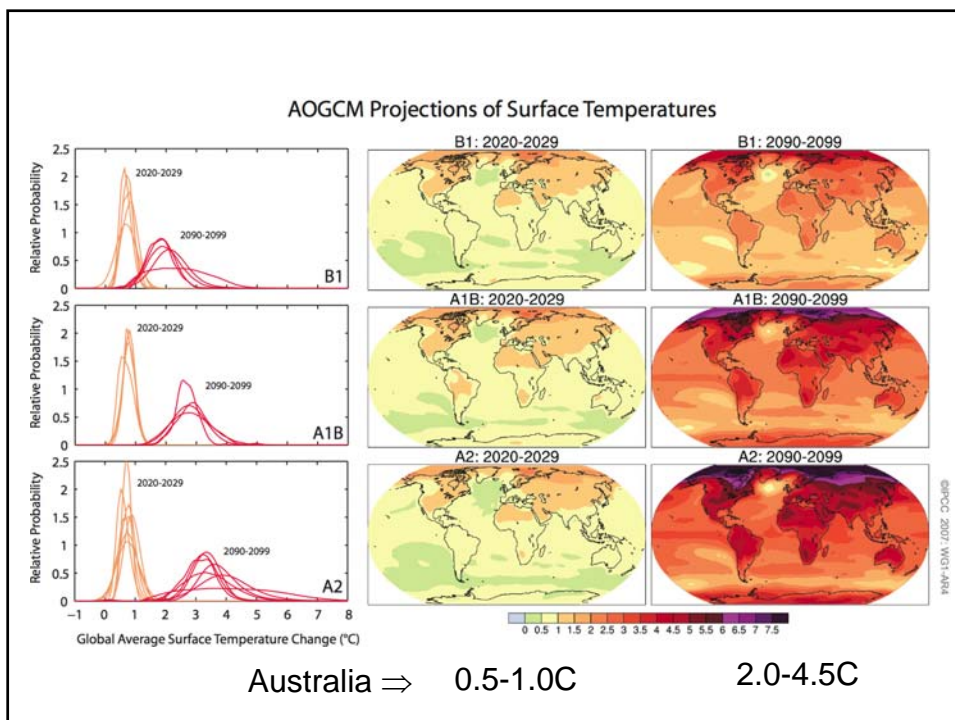


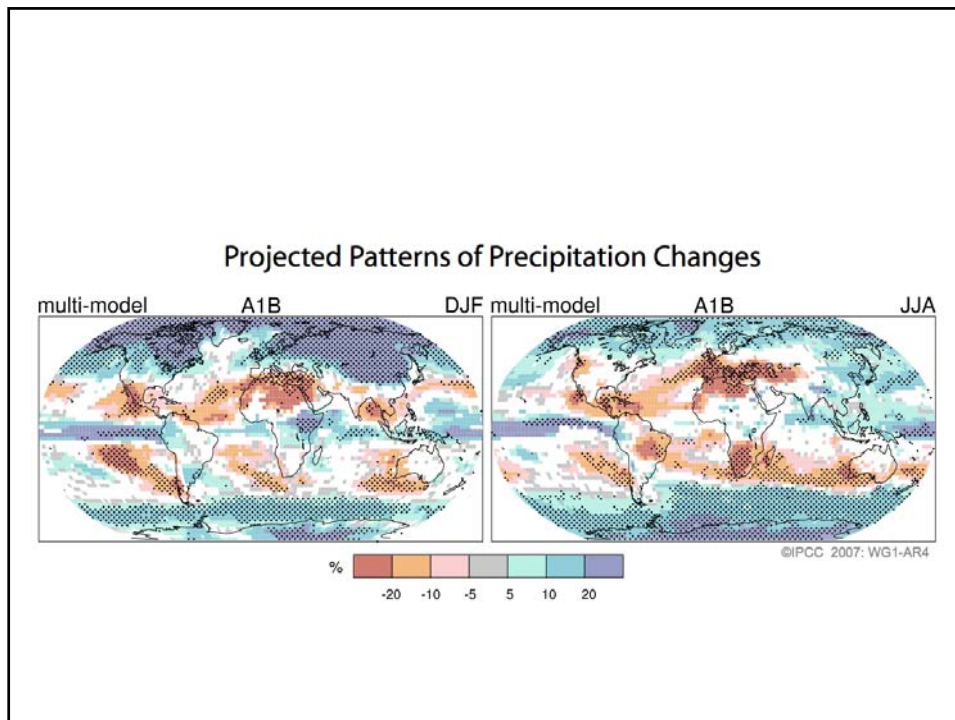


## Month of first fire, Victoria, versus August-November rainfall



## AOGCM Projections of Surface Temperatures





## The future?

- Increase in fire-weather risk likely at most sites
- Frequencies of days with very high or extreme FFDI likely to increase 4-25% by 2020
- Projected increase in fire-weather risk generally larger inland
- Higher fire-weather risk in spring and autumn
- Tasmania little affected
- Many caveats and uncertainties with these findings

*Climate change impacts on fire-weather in south-east Australia*

K.Hennessy, C.Lucas\*, N.Nicholls\*, J.Bathols, R.Suppiah, and J.Ricketts (December 2005)