

Protecting our climate

**NSW Government's response to
the challenge of climate change**

Alex Gordon

NSW Greenhouse Office

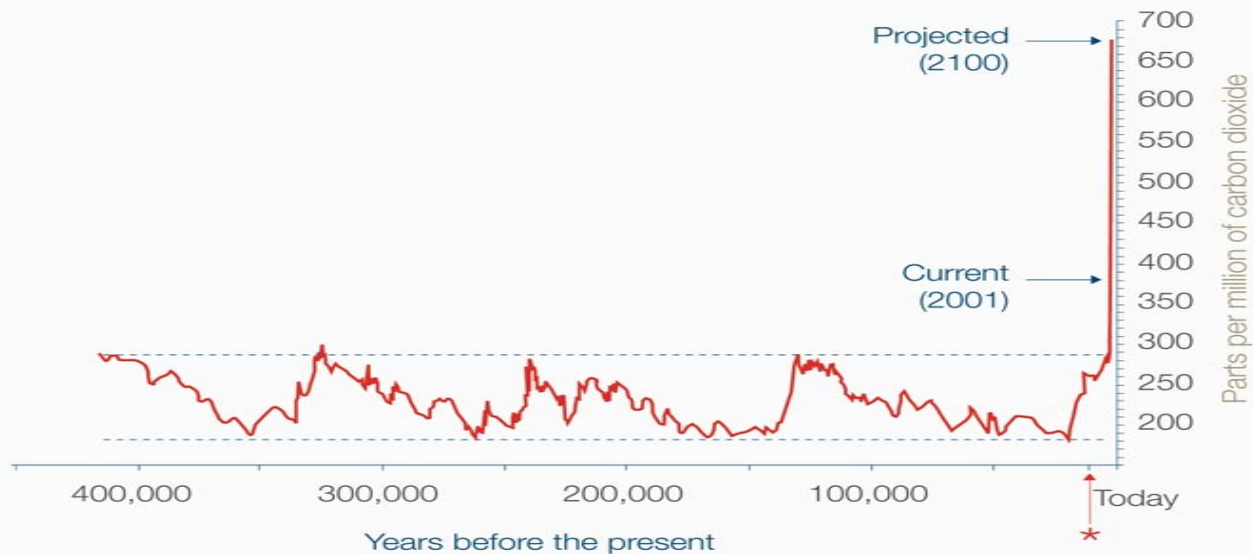
www.cabinet.nsw.gov.au/greenhouse

26 October 2004

What is causing climate change?

Carbon dioxide concentrations in the atmosphere are at a higher level than for 400,000 years

Source: Co-operative Research Centre for Greenhouse Accounting, 2001

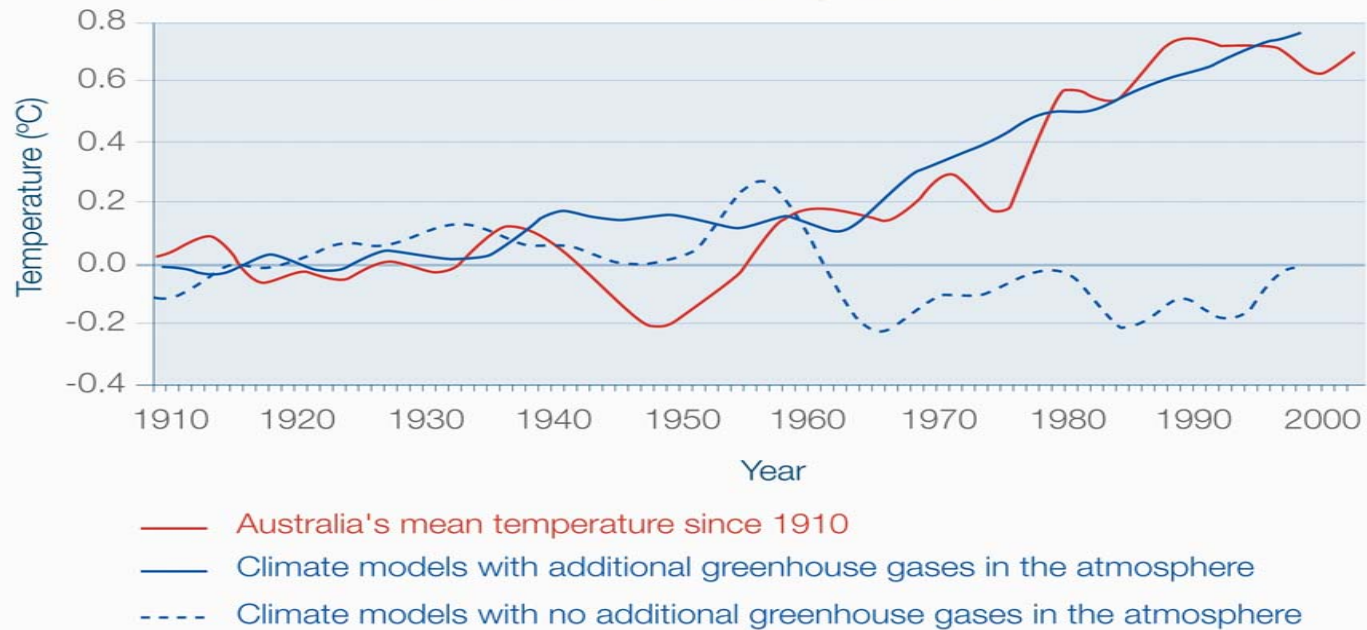


*Note: Civilisation began 7,000-10,000 years ago

How accurate are the models?

Australia's actual temperature increase compared to climate models tested with and without greenhouse gases

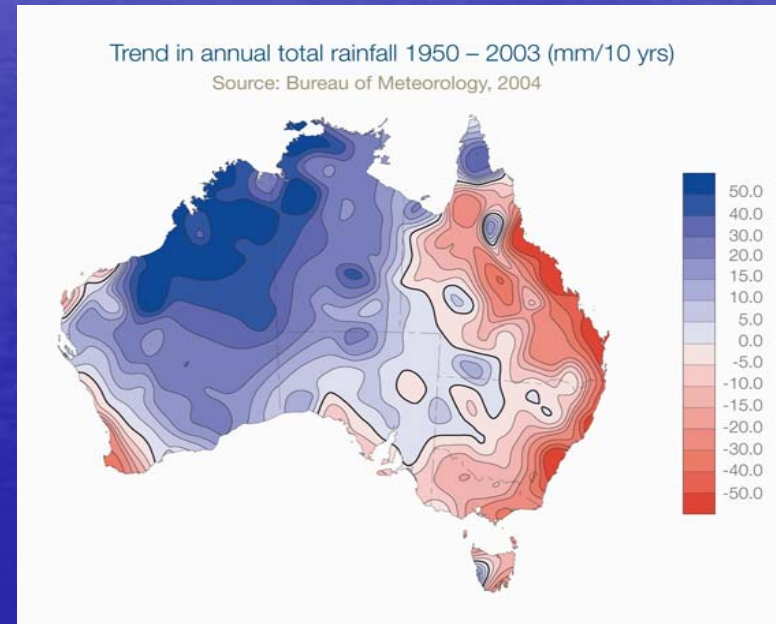
Source: Karoly and Braganza, 2004



The climate is already changing

The CSIRO +BoM reports that *every decade* since 1950:

- Av. max temp up 0.15°C
- Av. min temp up 0.19°C
- 1 more hot day (over 35°C)
- 2.6 more hot nights (over 20°C)
- 2.2 less cold days (under 15°C)
- 2.9 less cold nights (under 5°C)
- Rainfall 14.3mm lower
- Sea-level rise of 1.2mm/year



CSIRO and Bureau of Meteorology 'Climate Change in NSW' (2004)

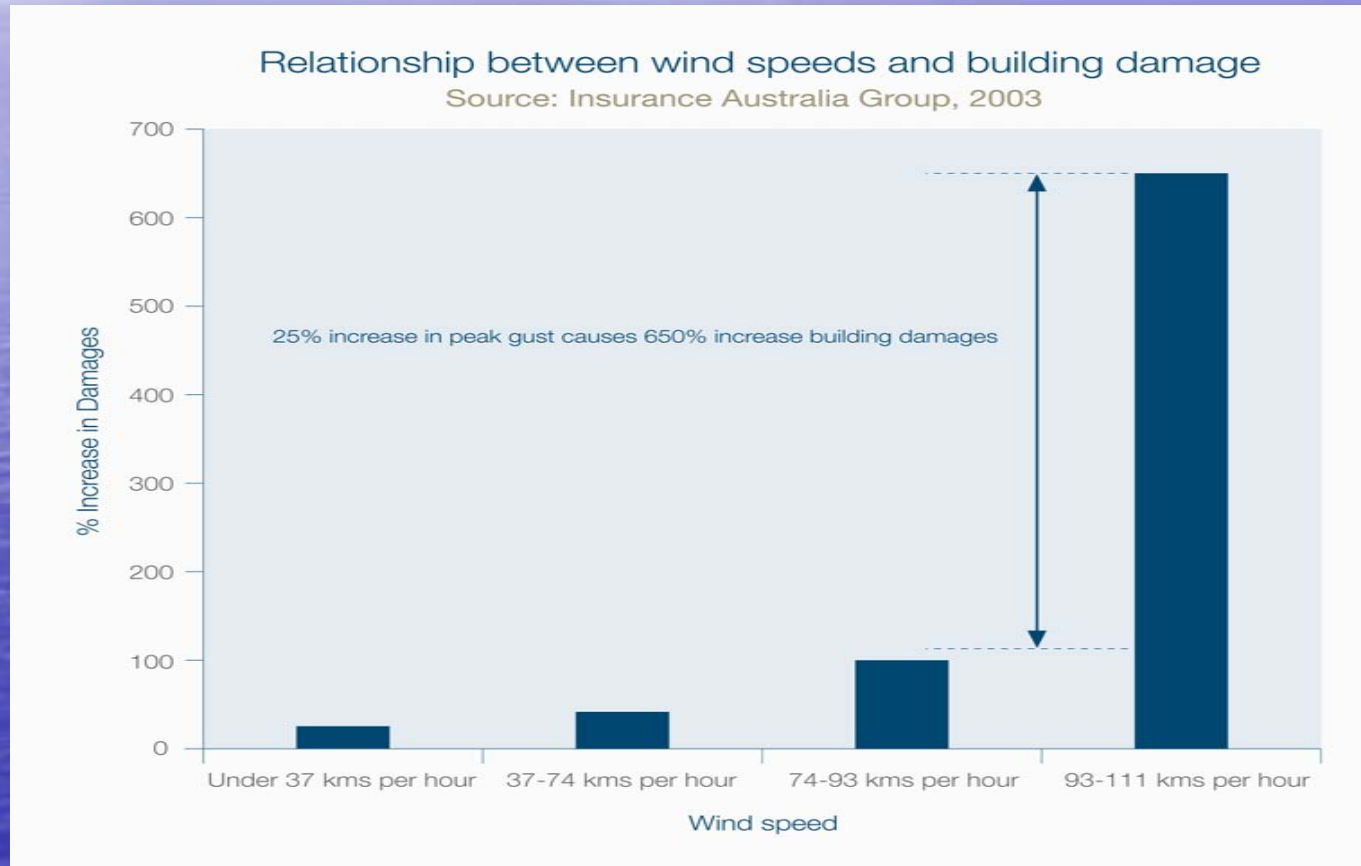
Some impacts will be significant

The most recent assessments of climate change suggests

- 12-25% reduction in river flow in Murray-Darling by 2050
- more frequent toxic algal blooms in inland rivers
- 10-40% decrease in the area of snow cover by 2020
- more severe droughts
- increase in the intensity of heavy rain events

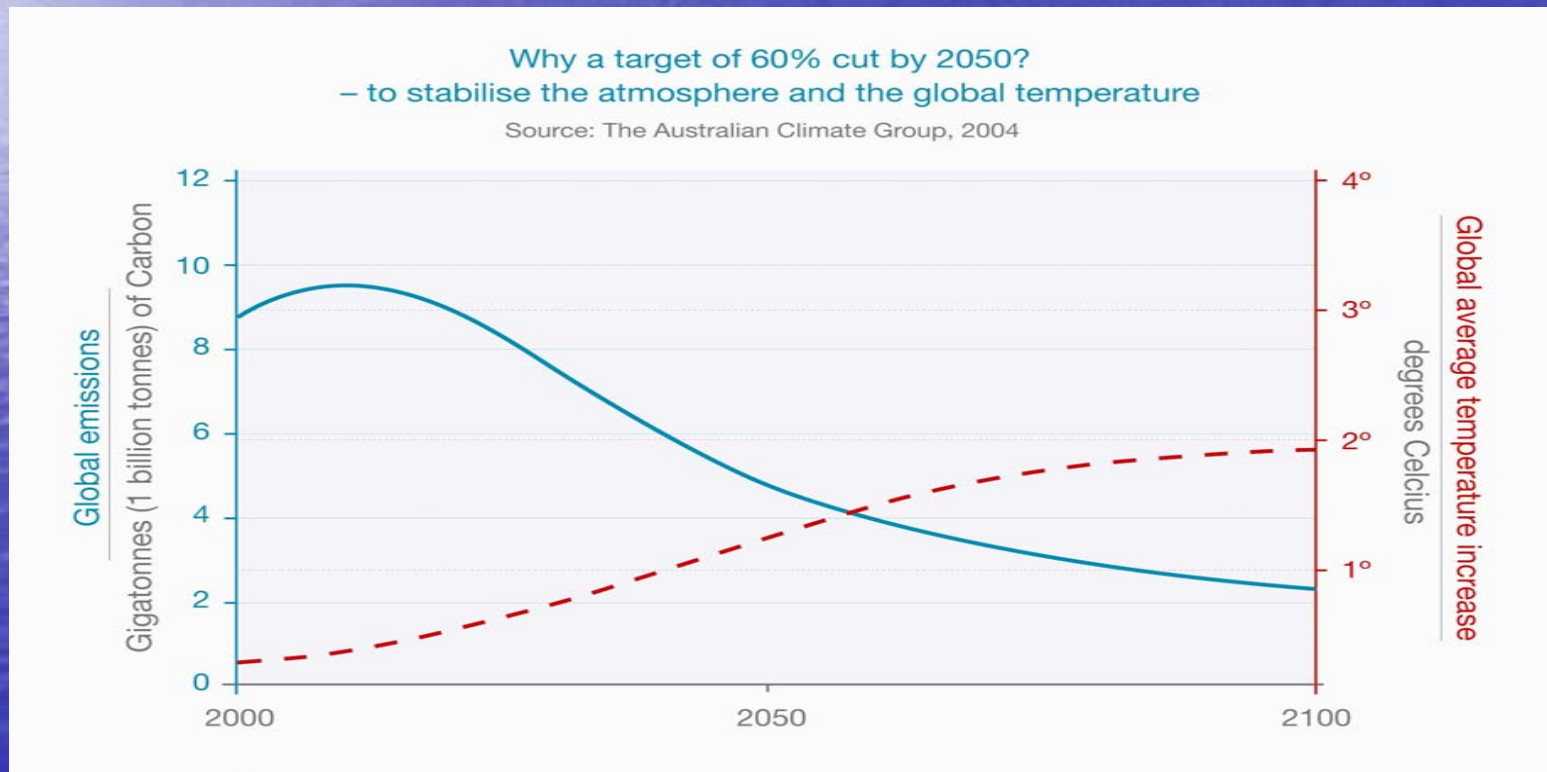
Climate Change: An Australian Guide
to the Science and Potential Impacts by Pittock (2003)

Small changes can have big impacts



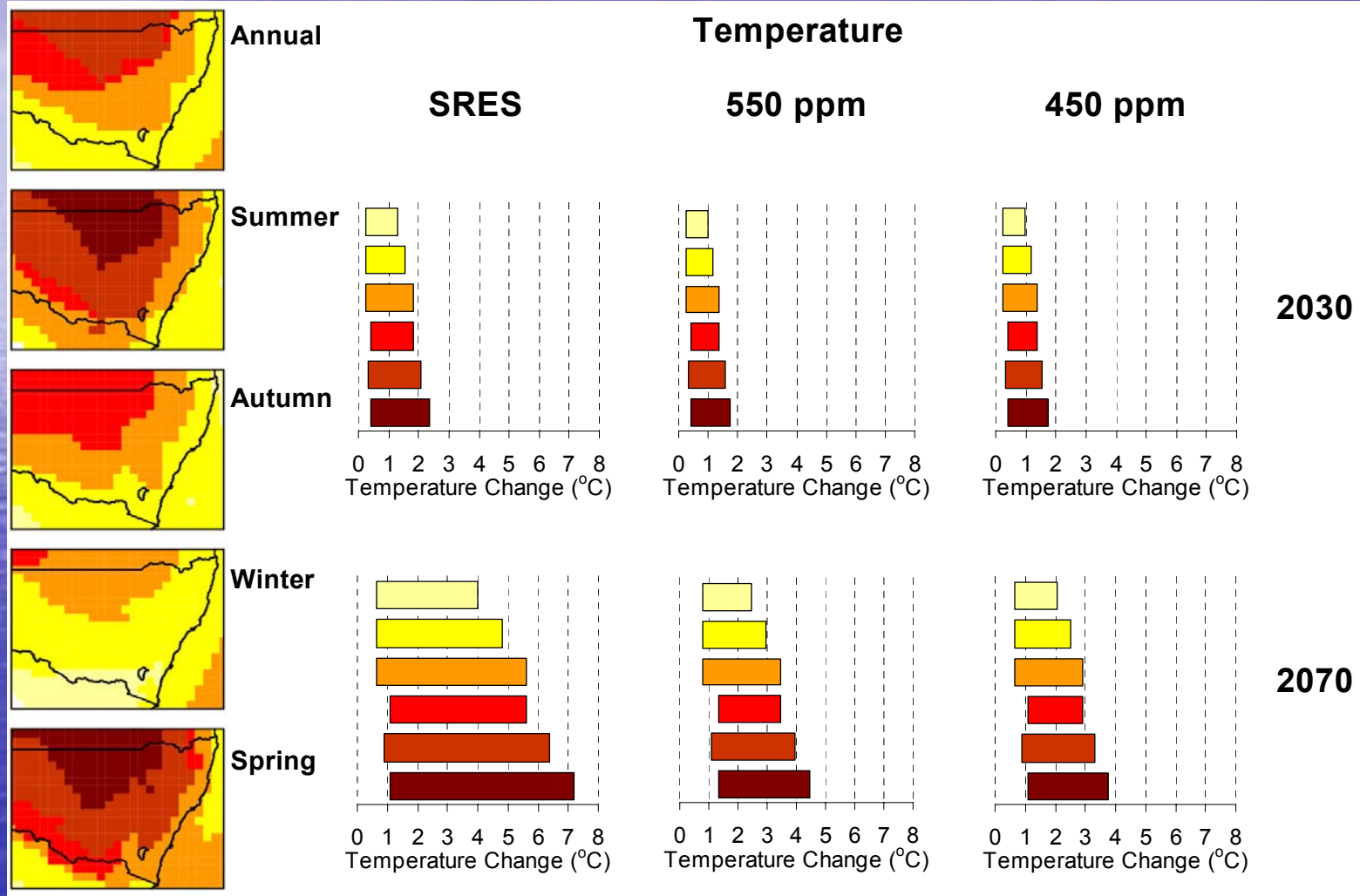
Limiting the impacts – deep cuts

The IPCC estimates global cuts in the order of 40% needed to limit temp increase to 2°C



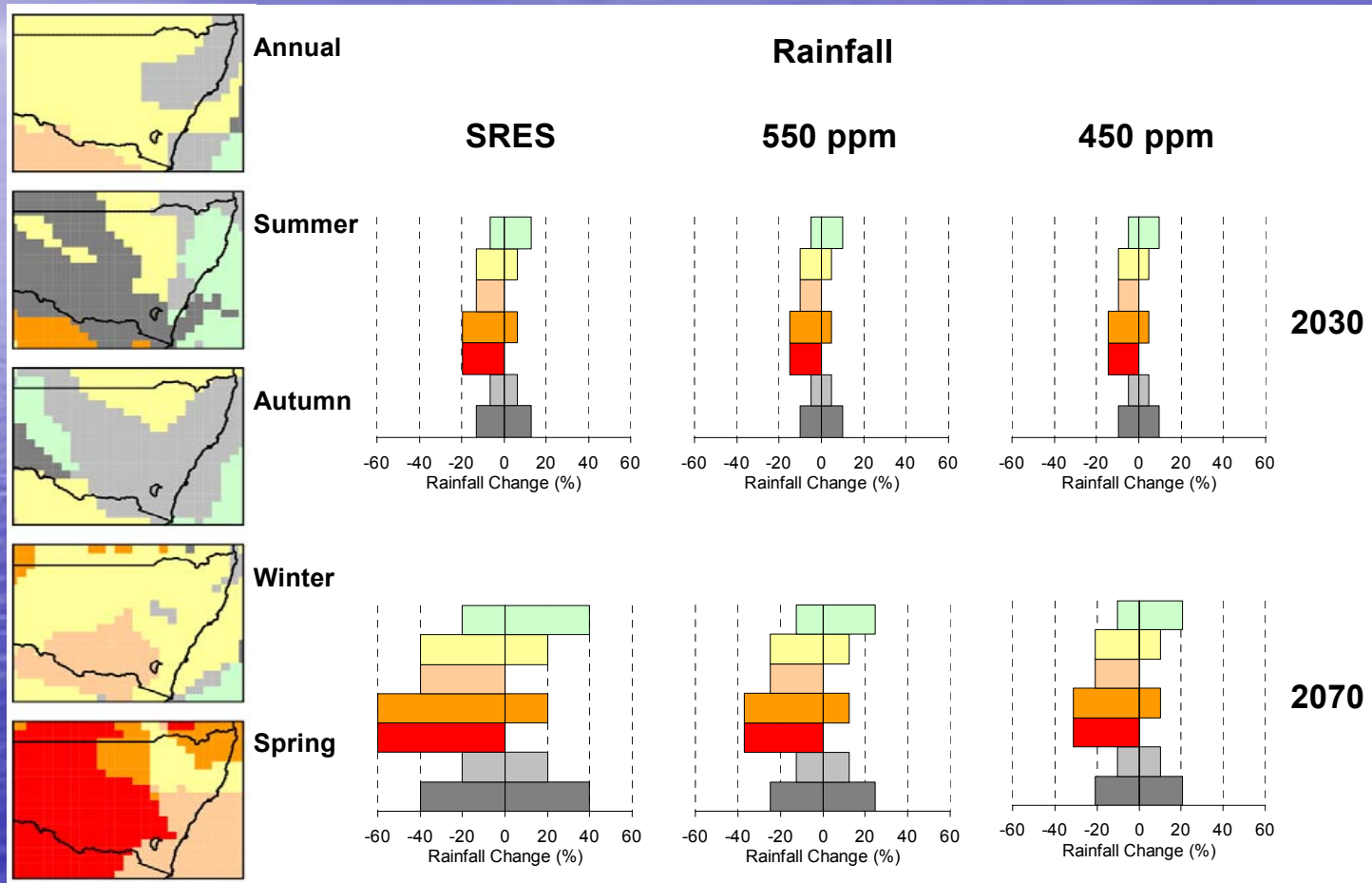
Temperature projections

CSIRO and Bureau of Meteorology 'Climate Change in NSW' (2004)



Rainfall projections

CSIRO and Bureau of Meteorology 'Climate Change in NSW' (2004)



International context

- UNFCCC
- Kyoto Protocol
- Russian ratification
- Kyoto flexibility mechanisms
- EU emissions trading scheme
- Beyond the first commitment period
- International Climate Change Taskforce

The national context

- Federal government will not ratify
- Commonwealth Energy White Paper
- Inter-jurisdictional emissions trading working group
- National emissions reporting working group
- National energy efficiency initiative

The NSW response

- **The NSW Greenhouse Benchmarks Scheme**
 - greenhouse intensity targets for electricity retailers
 - 5% reduction in per capita emissions from levels in 1990
 - abatement certificates from supply, demand management and tree plantation offsets
- **BASIX – Building Sustainability Index**
 - web-based planning tool assessing water and energy efficiency
 - new homes in NSW to use 40% less water and produce 25% less greenhouse gas emissions than average homes
- **Australian Building Greenhouse Rating Scheme**
 - Government offices to be rated by the end of 2004
 - by July 2006 new government buildings to achieve a 4.5 star rating and existing buildings will achieve a 3-star rating

NSW Greenhouse Office

- Specialist policy unit in Cabinet Office
- Co-ordinates and develops Government policy to adapt to climate change and reduce emissions
- Provides whole-of-government strategic advice directly to the Premier
- Participate in interstate greenhouse forums
- Guided by the NSW Greenhouse Advisory Panel
- Preparing a NSW Greenhouse strategy

The NSW Greenhouse Strategy

- **Goals**

- a long term pathway to a prosperous economy with low net carbon emissions
- limit the growth of emissions
- raise awareness
- increase knowledge of impacts and begin adaptation

- **Principles**

- partnerships
- co-benefits
- consistency with other economic, social and environmental aims
- balance short and long term goals
- comprehensive coverage

Comprehensive Coverage

- Adaptation - research and awareness raising
- Government – leading by example
- Energy - supply and demand management
- Transport – land use planning, improving efficiency
- Natural Resource Management
- Waste – reducing, recycling and capturing methane
- Industrial Processes –efficiency and process change
- Fugitive Emissions – encouraging better resource use

***"The big question for Australia,
is whether we want to pass on a hotter,
drier continent with more extreme
weather to our children
and the children after them....
As the CSIRO report shows, climate
change is upon us. We're out of time."***

Premier Bob Carr
7 Sept 2004