

Should New Zealand Fight Climate Change?

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15 April 2008

Contribution to an ISCR Debate

Outline

1. How, not whether
2. Defining the problem
3. Implications of the science of climate change
4. The rationale for NZ action on climate change
5. The way ahead

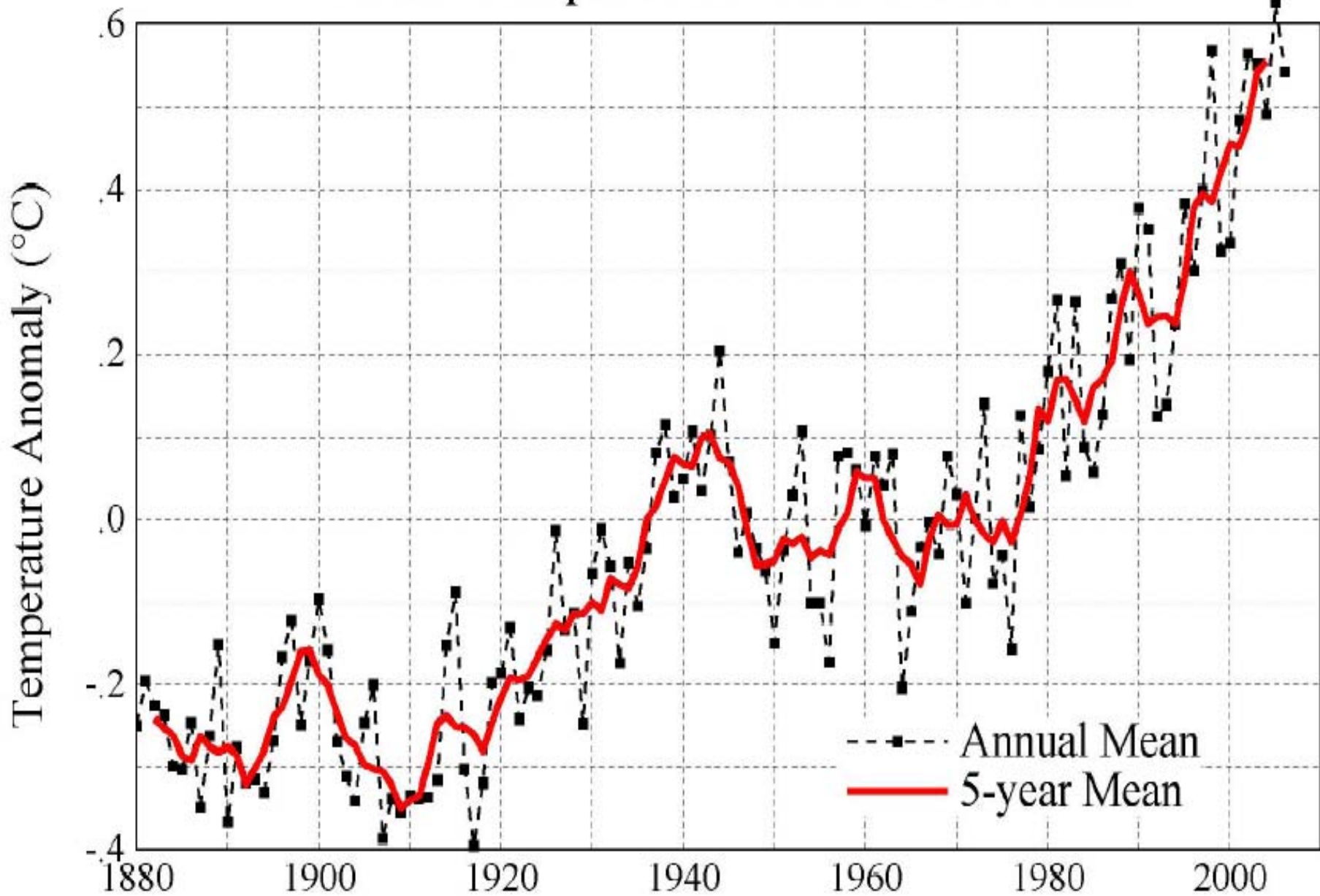
Defining the Problem

1. Human induced climate change is a collective action problem
2. The Earth's atmosphere and climate stability are 'global public goods'; climate instability is a 'public bad'
3. Without clear and enforceable property rights, every country has an incentive to use the atmosphere as a dumping ground for greenhouse gases
4. This risks a 'tragedy of the commons' (i.e. dangerous global warming)
5. An effective solution requires collective action

The Science of Climate Change

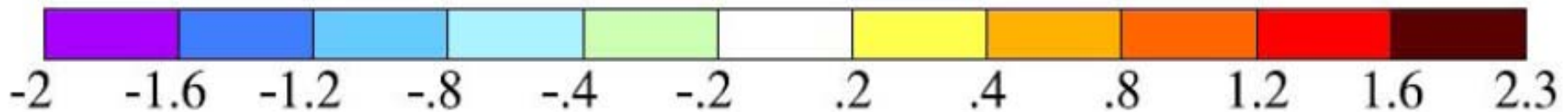
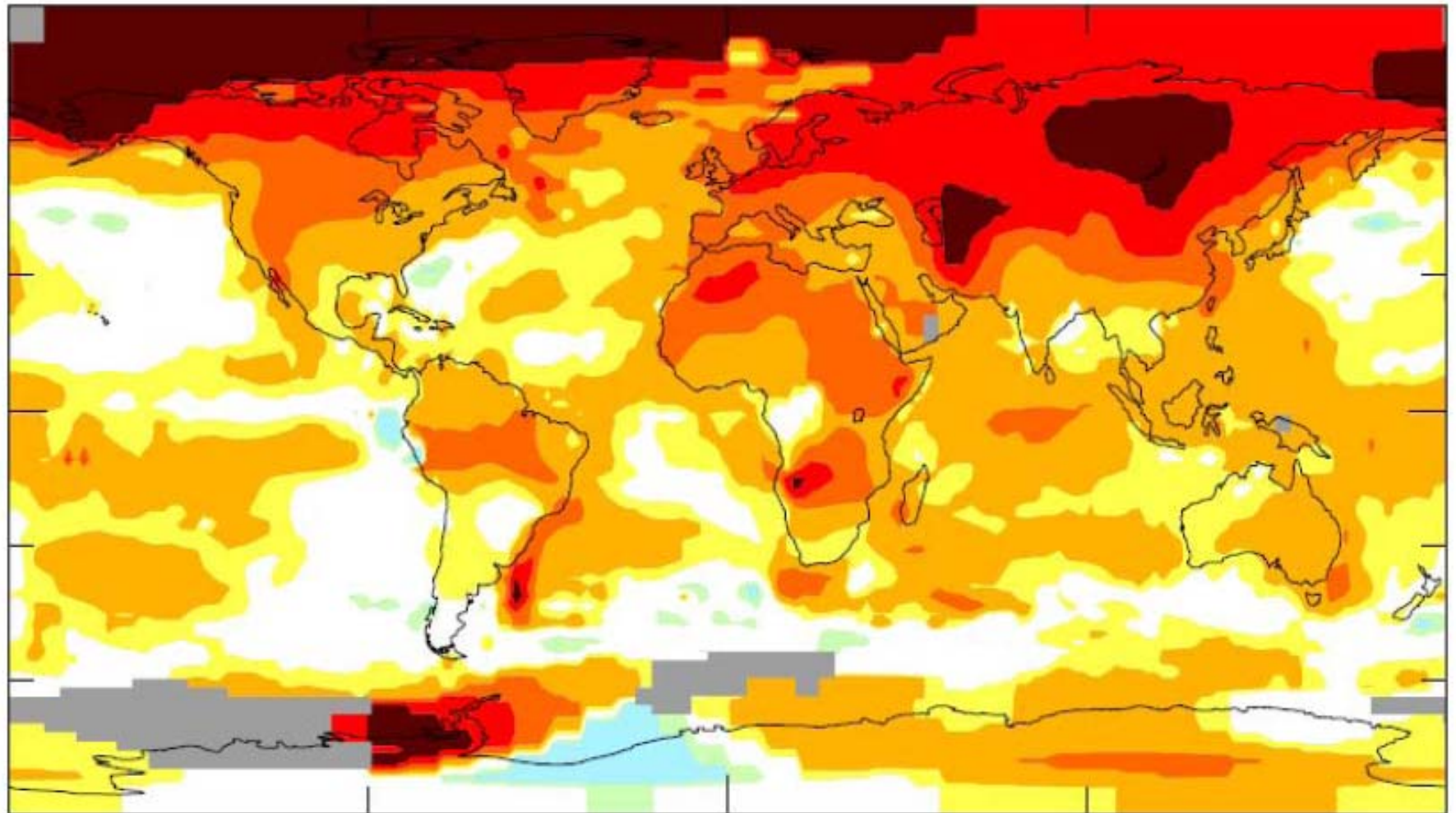
1. The enhanced greenhouse effect provides a plausible (and the best) explanation for rising global temperatures
2. The findings of the Intergovernmental Panel on Climate Change:
 - 'Warming of the climate system is unequivocal
 - "Most of the observed increase in globally-averaged temperatures since the mid 20th century is *very likely* due to the observed increase in anthropogenic GHG concentrations"

Global Temperature: Land-Ocean Index



2001-2007 Mean Surface Temperature Anomaly ($^{\circ}\text{C}$)

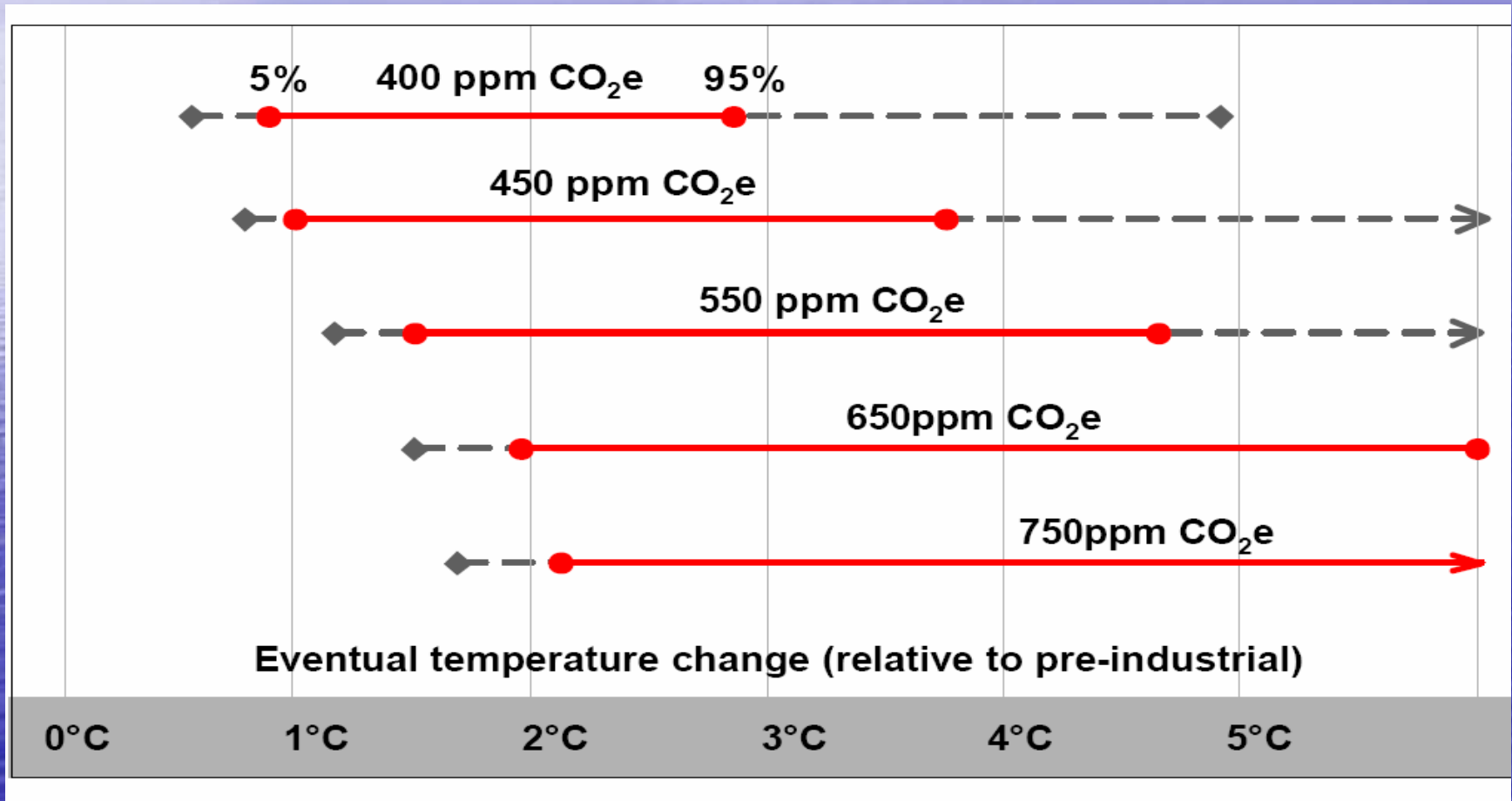
Base Period = 1951-80, Global Mean = 0.54



Other key points:

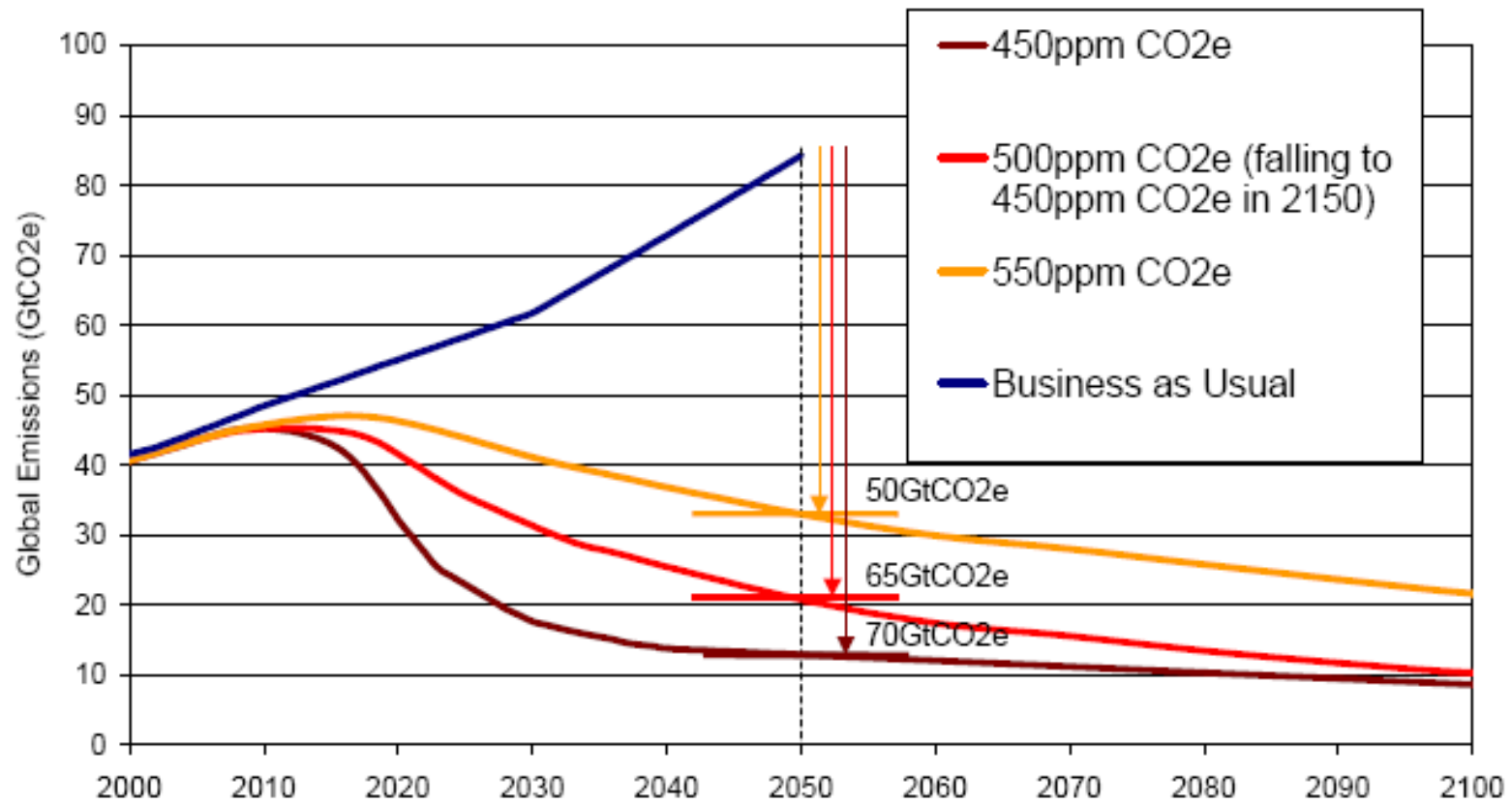
- Avoiding the worst impacts of climate change probably means keeping the global temperature increase below 2°C above pre-industrial levels
- Implications for stabilizing GHG concentrations
- Any significant delay in taking action runs serious risks
- The cost of reducing emissions is relatively modest and likely to be (much) lower than not taking action

Stabilization targets and temperature implications (from Stern Review)



Emission paths to stabilization

(from Stern Review)

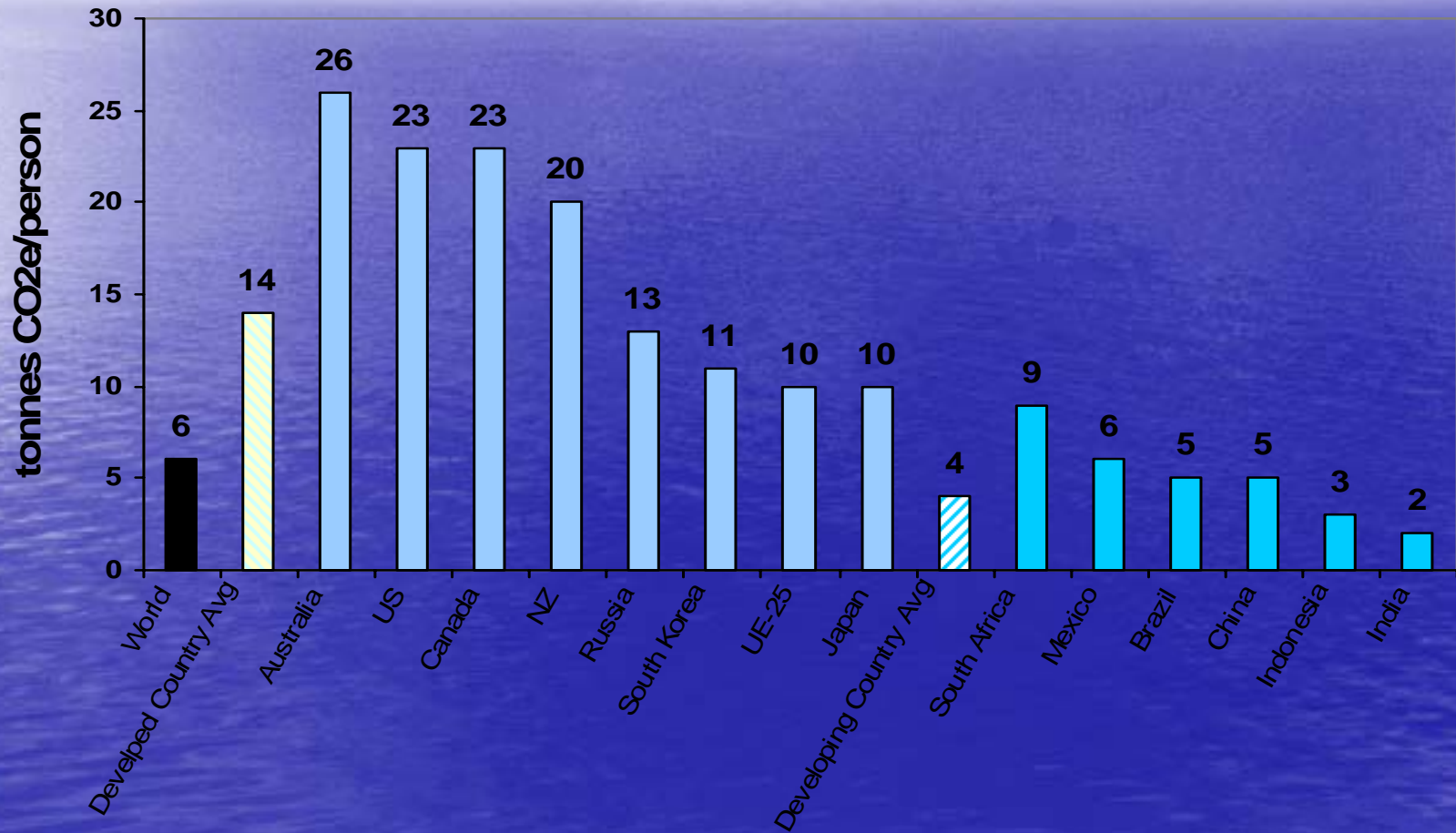


The Rationale for NZ Action

Relevant considerations:

- Obligations under international law
- Ethical
- Diplomatic
- Economic
- Overall, enlightened self-interest

Per capita greenhouse gas emissions (2004)



The Way Ahead

International goals:

- Ambitious post-2012 global agreement
- Clear long-term stabilization goal
- Stringent medium-term global emission-reduction goal
- Responsibility targets for all developed countries
- Fair sharing of the burden of adjustment
- Sensible rules
- Action on adaptation

The Way Ahead

Domestic action:

- NZ needs to fulfill its international obligations, in a cost-effective and equitable manner
- Long-term aspirational emission-reduction target(s)
- Mix of economic instruments and other measures
- Investment in relevant R&D important
- Mix of conditional and unconditional actions