

# Where now on Climate Change?

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# Some Questions

- Is climate change still a significant issue?
- Could the “sceptics” be right?
- Is the IPCC fit for purpose?
- What needs to be done?
- Where to post Copenhagen?

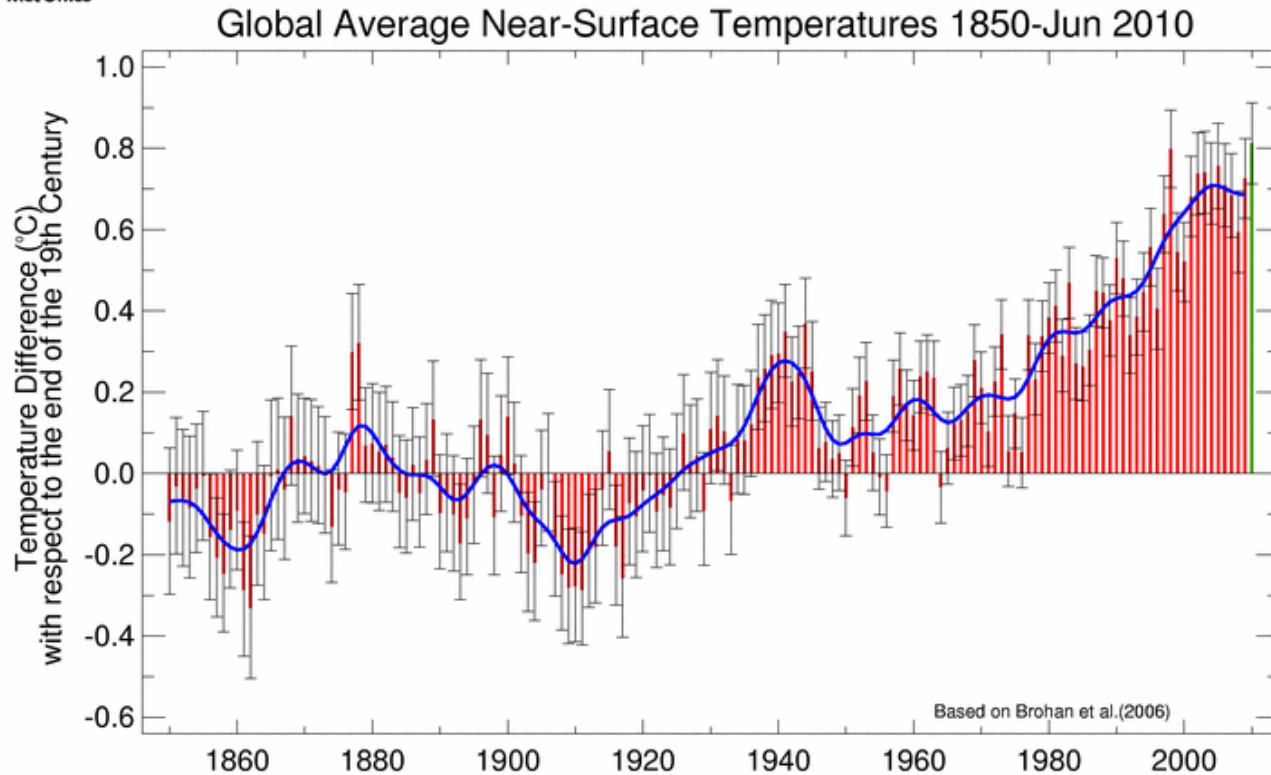
Is climate change still a significant issue?

# THE ISSUE

There is unequivocal evidence that the earth's climate is warming

# **OBSERVED CHANGES IN CLIMATE**

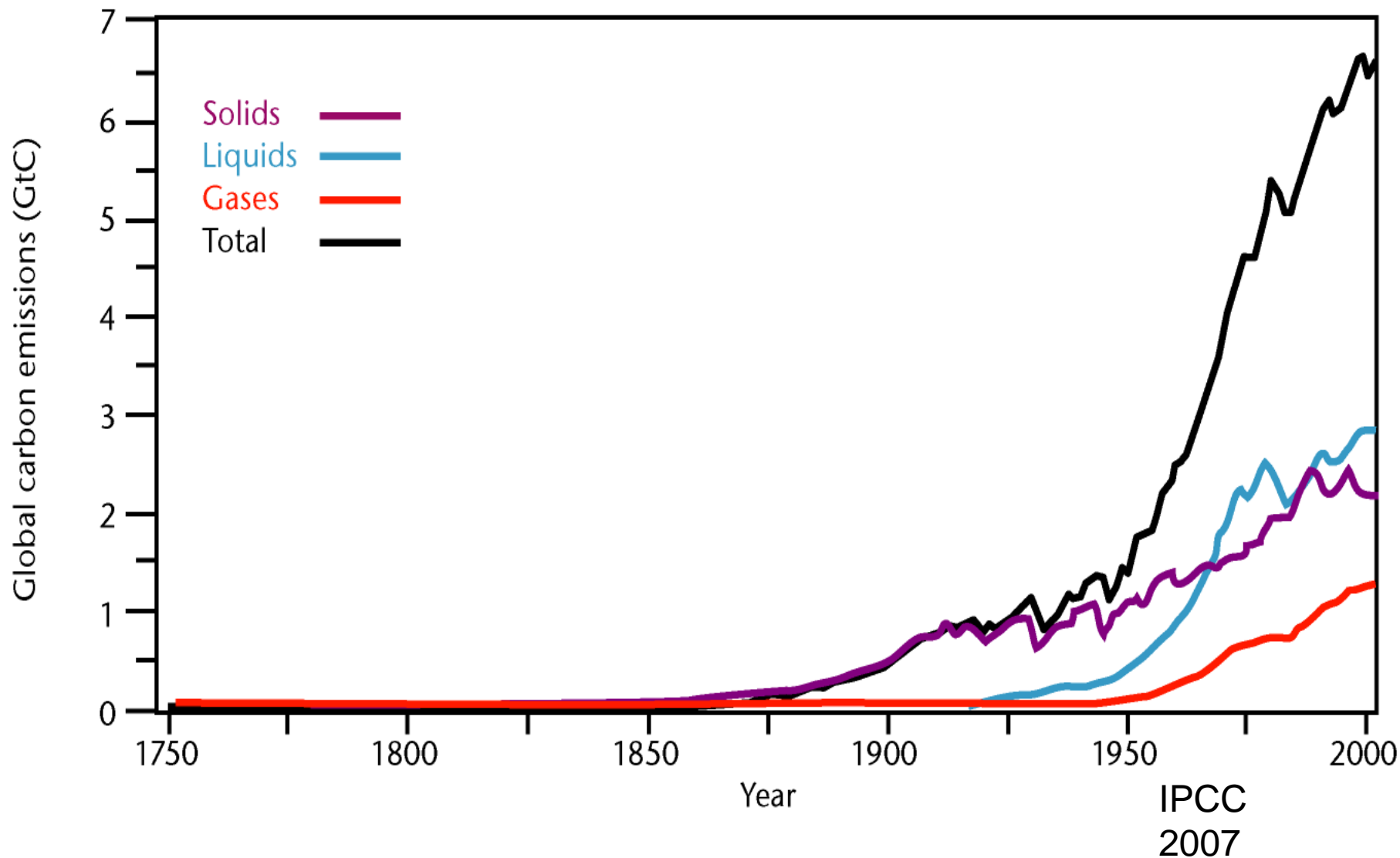
# A warming world



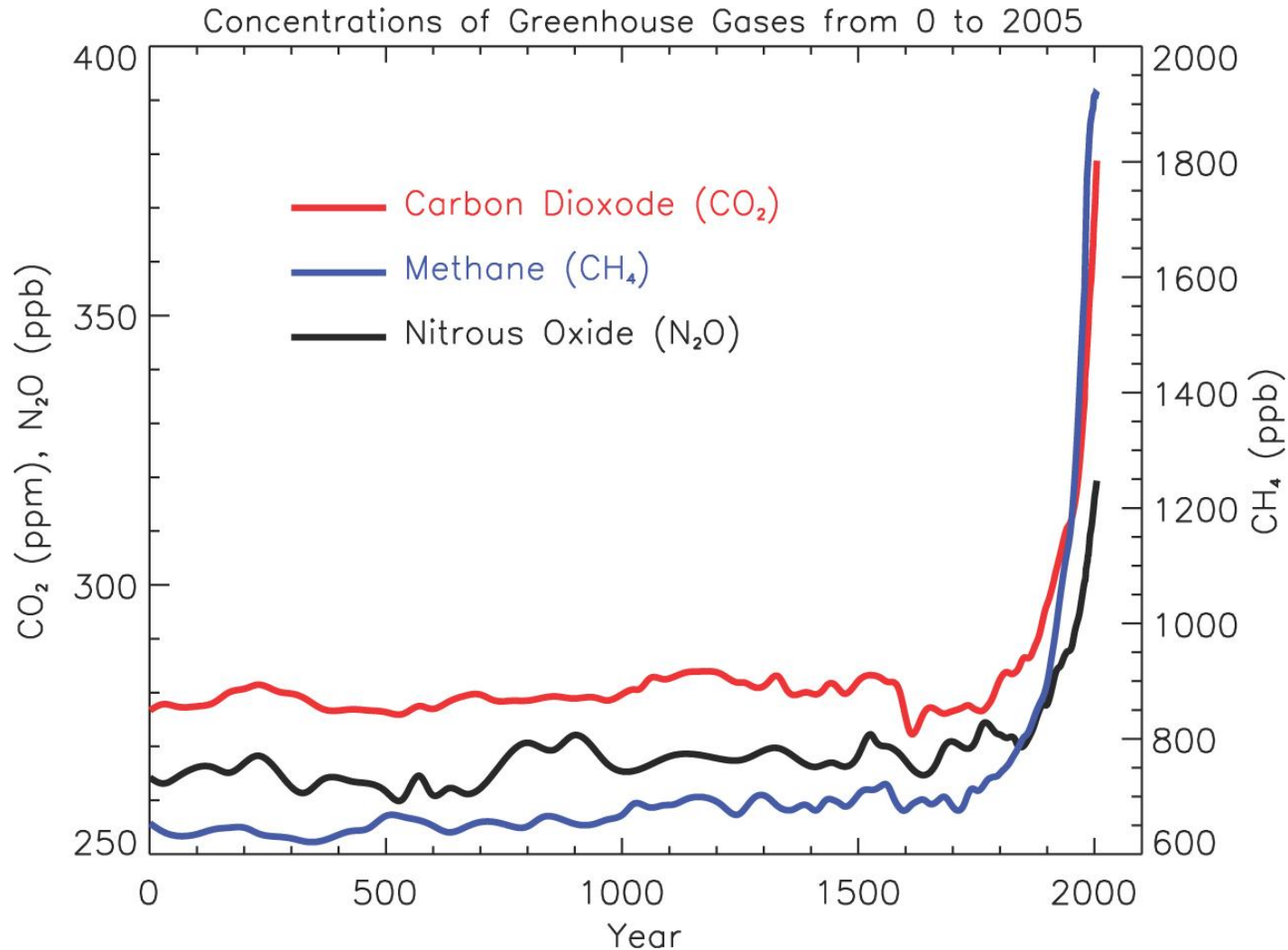
Recent changes in climate can only be explained by taking account of increased greenhouse gases.

# **EVIDENCE FOR HUMAN INFLUENCE**

# CO2 emissions rose rapidly after 1950

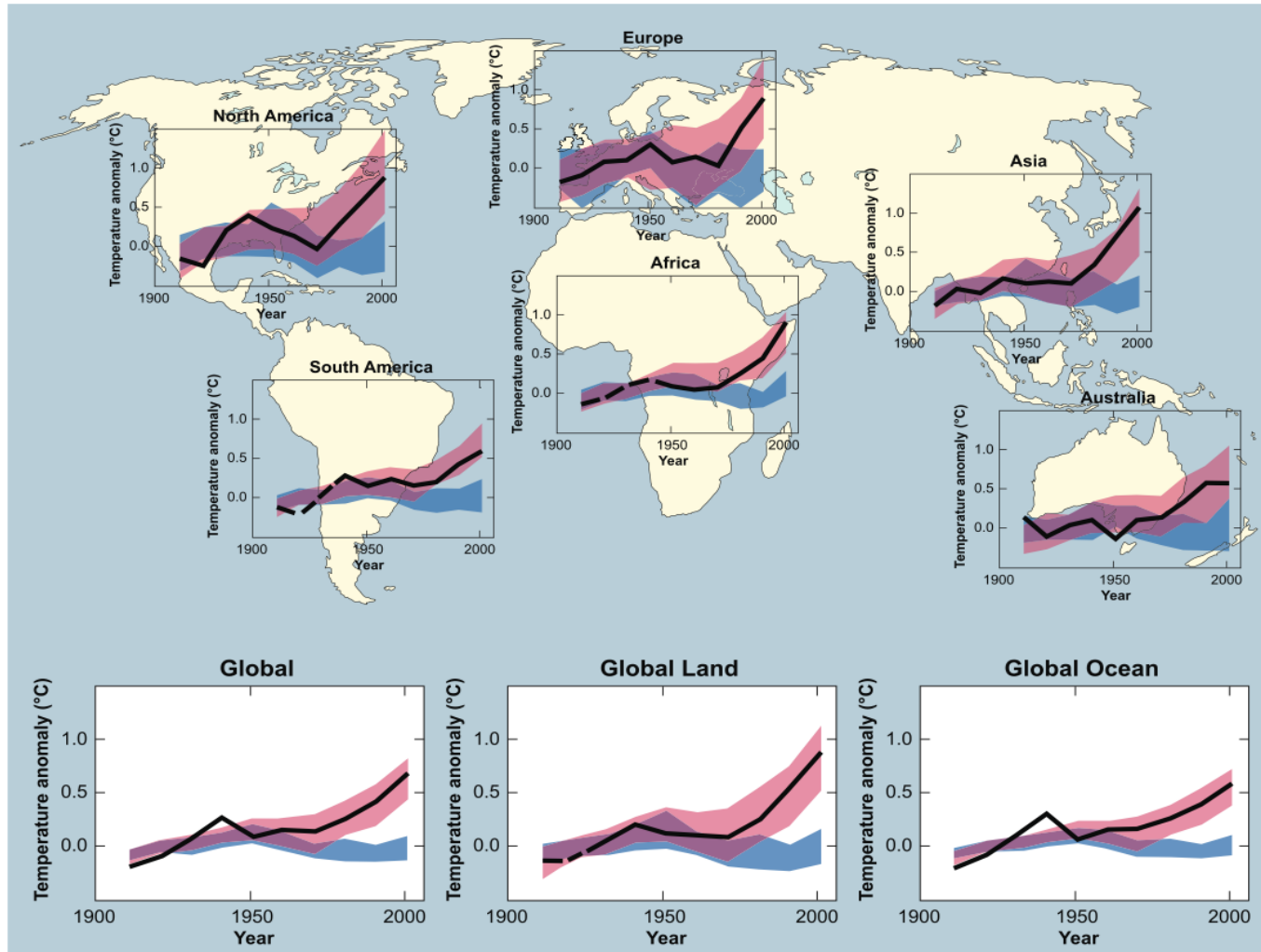


# Greenhouse gas concentrations have also risen sharply



IPCC  
2007

# Temperature changes cannot be explained by natural factors



models using only natural forcings

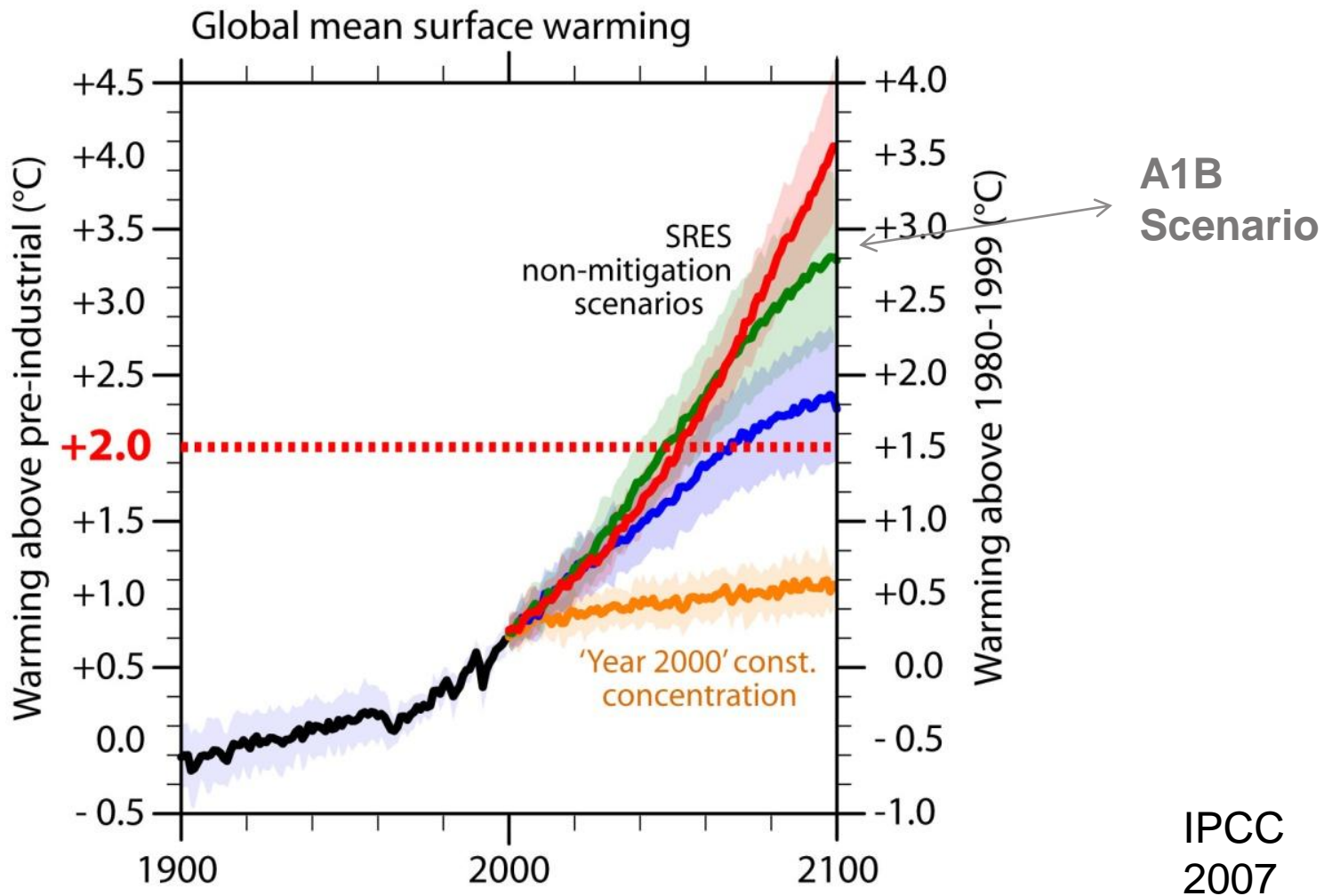
observations

models using both natural and anthropogenic forcings

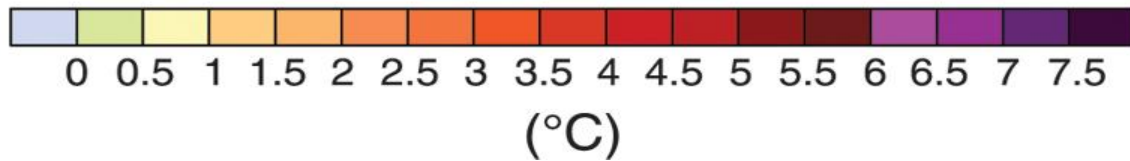
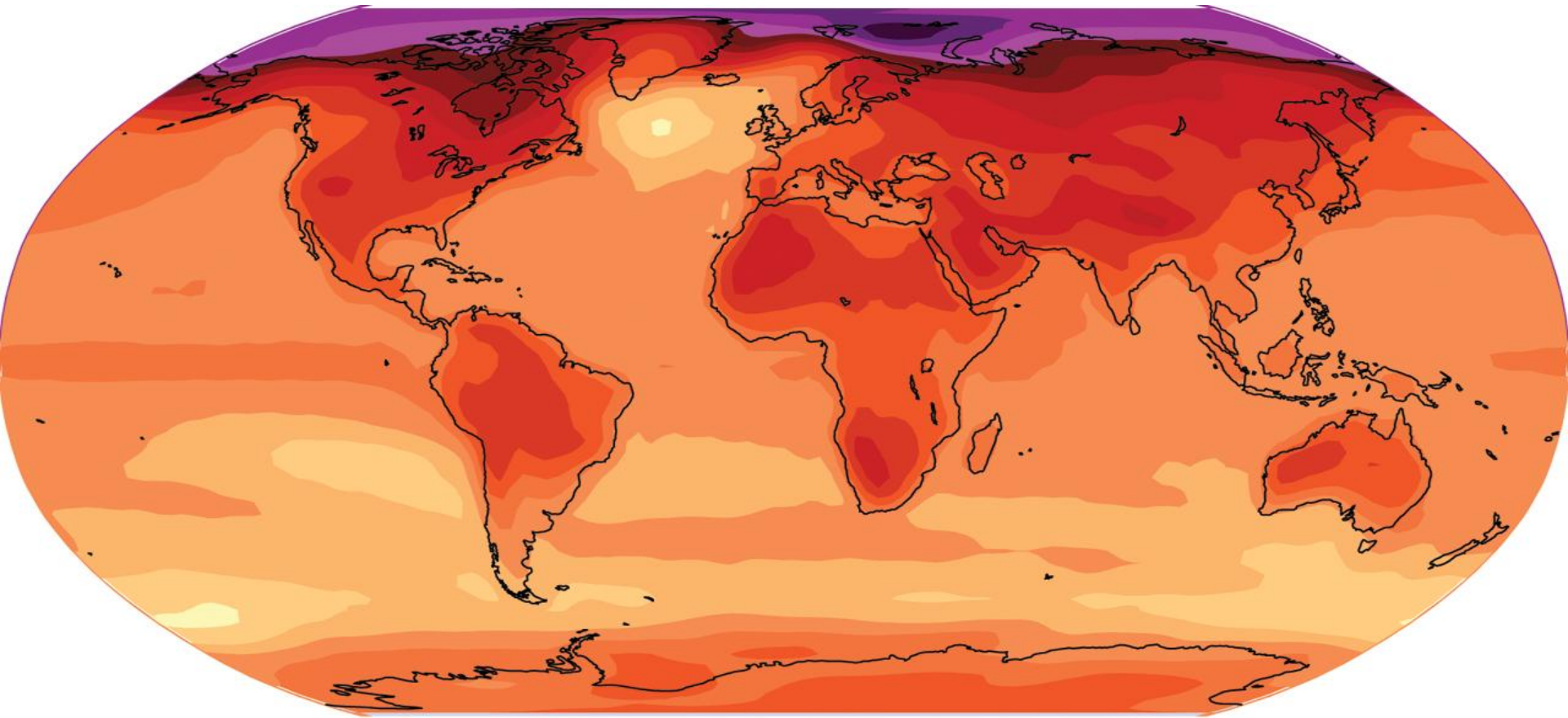
If greenhouse emissions continue to rise, significant levels of climate change can be expected

# **FUTURE CLIMATE CHANGE**

# Global temperatures likely to exceed 2C



# 2090-99 Multi-model Temperature Projections (A1B) - 2.8C rise



IPCC  
2007

Climate change will adversely affect all locations  
and all sectors of society

# **RISKS OF CLIMATE CHANGE**

# Critical levels: ecosystems



From ECOBLE

- 0.7C Impacts occurring now
- 1.5 C Critical effects
- 2-3 C 30% species extinction and widespread loss of corals, polar bear; loss of Amazon rainforest; Land carbon sink may become a source
- 4-5 C Major/widespread extinctions

# Critical levels: Food



English Vines, Warrilow (2005)

- Crop yields will decline in tropics for small warming but increase in high latitudes
- Between 1.5 and 2.0 C crop yields begin to decline globally
- Global food production falls above 3 C

# Rapid system change is a key risk



Sea ice



Ice sheets



Permafrost



Tropical rainforest



Boreal Forest



Methane hydrates

# Conclusions on risks



1-2 C Largely manageable risks, but not wholly safe

2-3 C Significant and growing risks

3-4 C Irreversible change unpredictable risks

More than 4C Potentially disastrous

The Copenhagen Accord recognises the need to limit temperature rises to not more than 2C

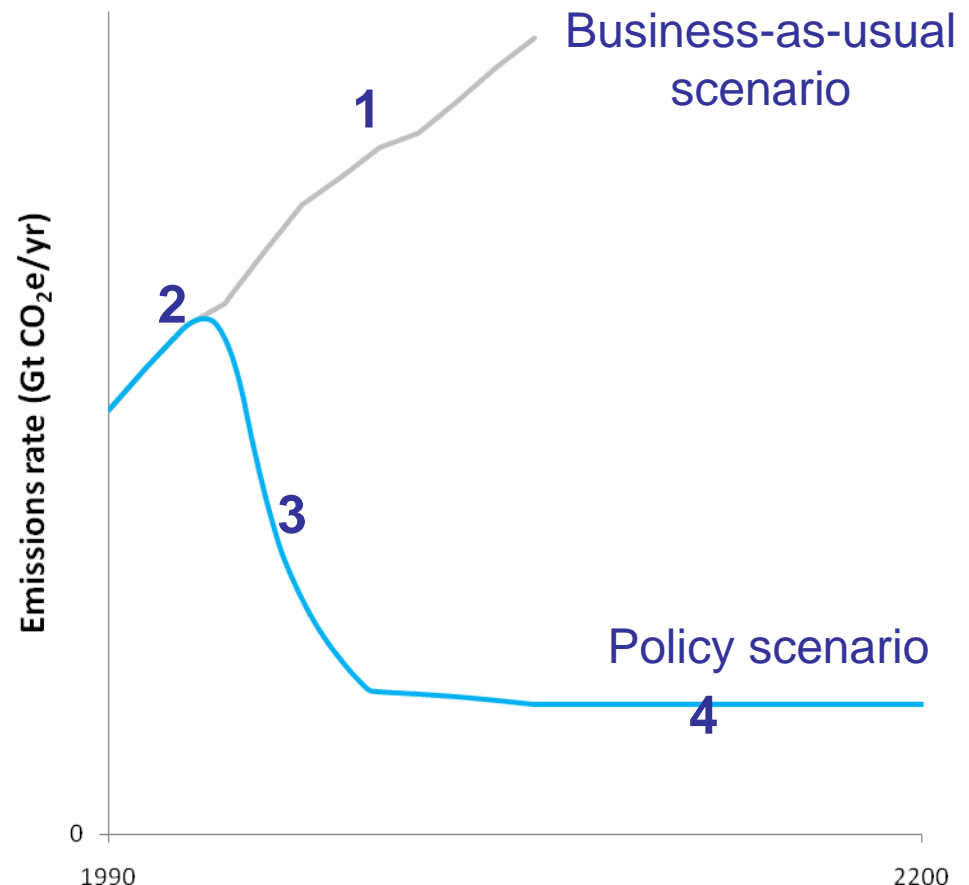
What needs to be done?

# **AVOIDING DANGEROUS CLIMATE CHANGE**

# Global emission trajectories for stabilisation

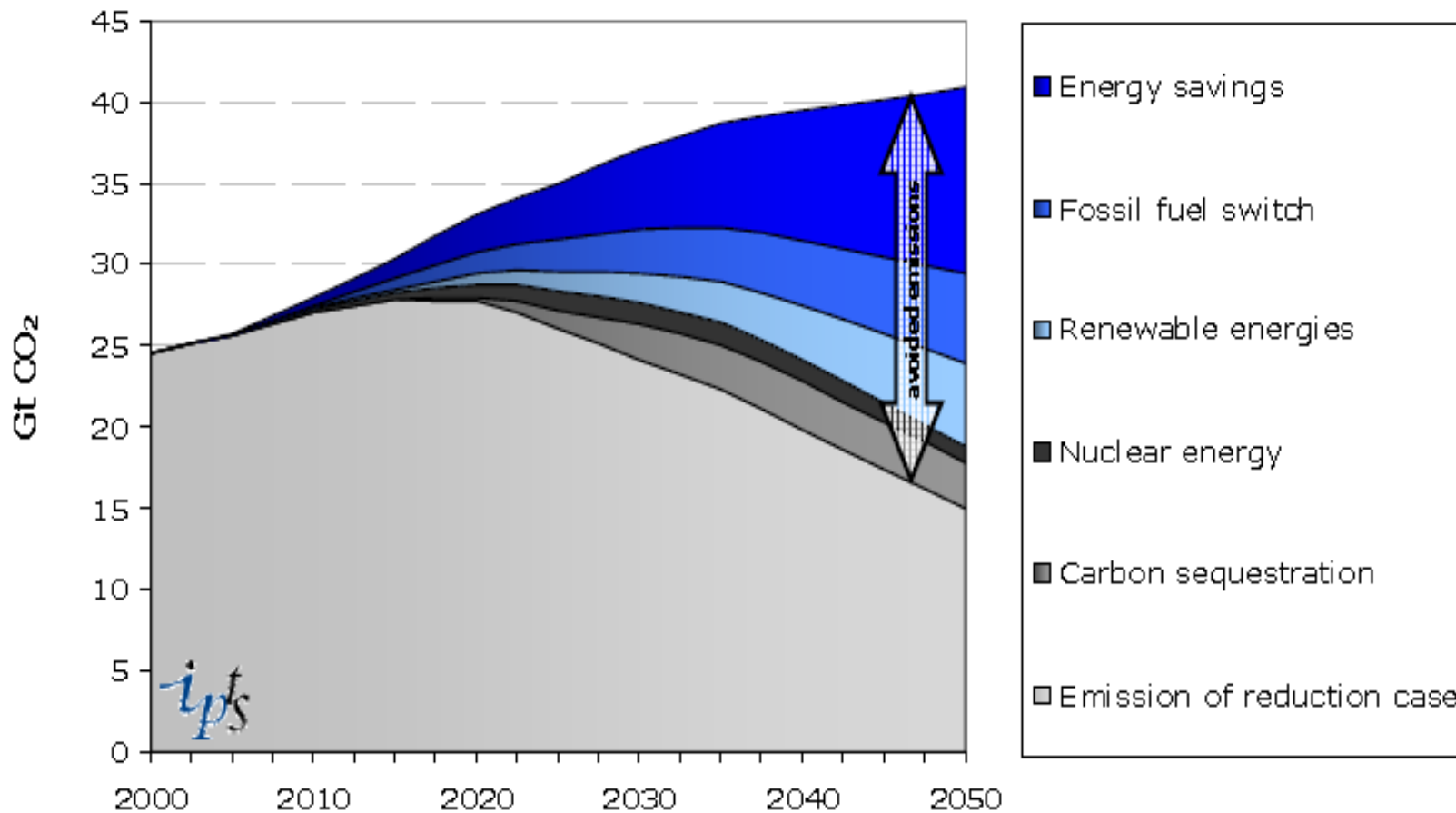
Key factors affecting stabilisation temperatures:

1. The emission rates leading up to the peak (BAU)
2. The year of peak emissions
3. The emissions reduction rate following peak emissions
4. The net level of emissions in long-term



AVOID

# Options to reduce emissions



# IPCC 4<sup>th</sup> Assessment Report – Key Findings



- Warming of the climate system is unequivocal and the role of human activities in the observed changes is now clearer than ever.
- In the absence of international effort, GHG emissions will continue to grow rapidly over the coming decade.
- Rising temperatures will be accompanied by many other changes to the Earth system, affecting food and water supplies, human health, biodiversity and the economy.
- Global emissions must peak in the next decade or two and then decline to well below current levels by the middle of the century if we are to avoid dangerous climate change.
- Our actions in the next decade will have a large impact on opportunities to avoid dangerous changes.

Could the “sceptics” be right?

# ALTERNATIVE VIEWS

# Evidence, scepticism and denial



- Climate scientists identified a potential problem – fully assessed in 1985 (Scope 29).
- Resistance came from some Governments and threatened Industries
- The “sceptical debate” is designed to delay action – through stressing uncertainty, raising red herrings, questioning data or models, criticism of process or experts.
- Media stories denying climate change emerge more frequently ahead of major negotiating meetings.
- Denial is more about politics than science

# How to promote denial! – Martin McKee

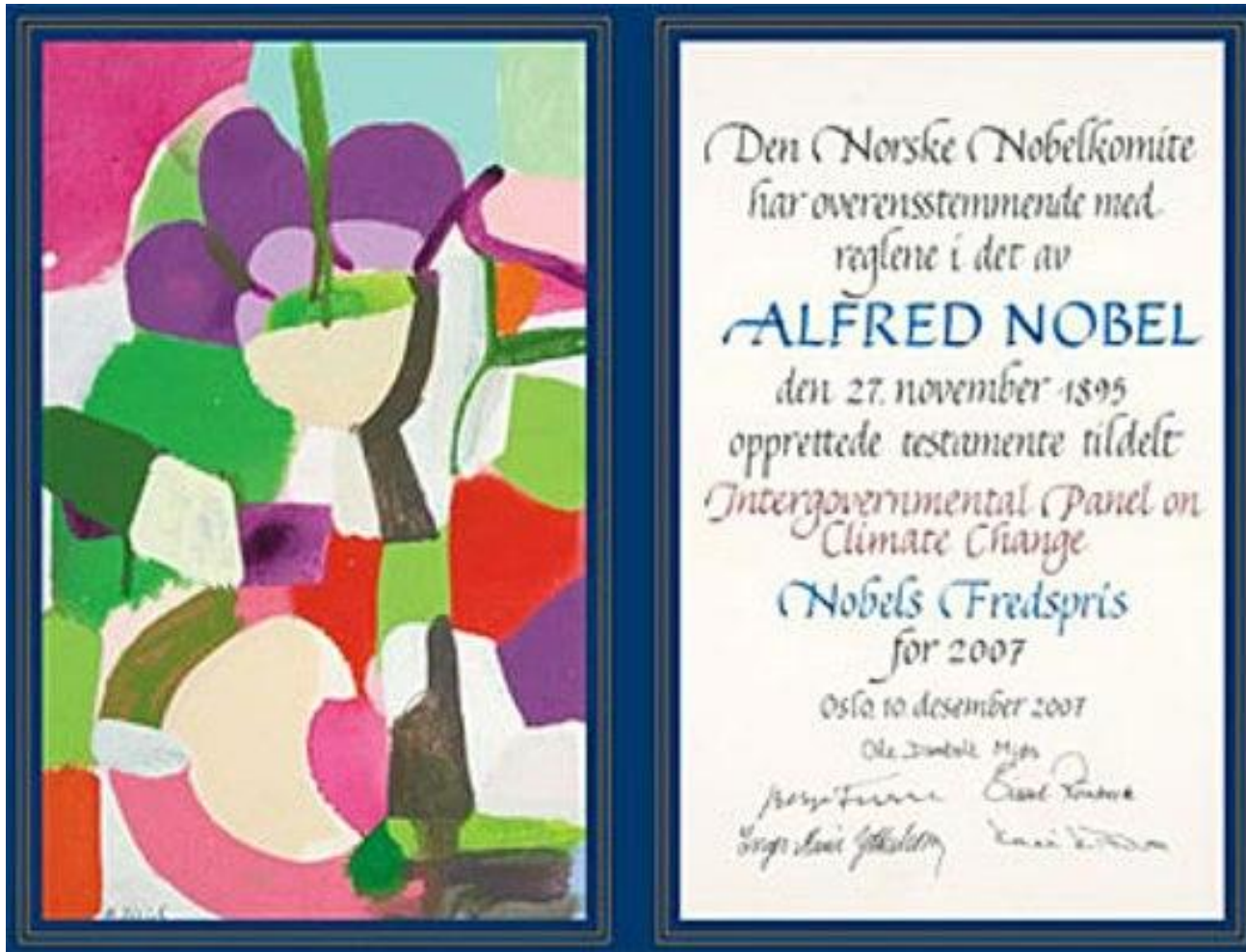


- Allege that there's a conspiracy.
- Use fake experts to support your story.
- Cherry-pick the evidence and carry on trotting out supportive evidence even after it has been discredited.
- Create impossible standards for your opponents. Claim that the existing evidence is not good enough and demand more.
- Use logical fallacies. Deliberately misrepresent the scientific consensus and then knock down your straw man.
- Manufacture doubt. Falsely portray scientists as so divided that basing policy on their advice would be premature. Insist "both sides" must be heard and cry censorship when "dissenting" arguments or experts are rejected.

Is the IPCC fit for purpose?

**RELIABLE EVIDENCE**

# Triumph and disaster



# Action on the IAC Review



In response the IPCC agreed two weeks ago to set up 4 task groups to:

- Tighten procedures
- Modernise management
- Increase transparency
- Improve communications
- Complete process by Spring 2011

5<sup>th</sup> Assessment Report is now underway and should benefit from any changes

Where to post Copenhagen?

**A GLOBAL DEAL**

# Time to regroup



- Copenhagen – made some progress but a bruising experience – and fell short of a binding and universal agreement. Key outcomes :
  - 2020 Pledges for all
  - Recognition of the overall scale – a 2C limit
  - Major agreement on Finance \$100bn by 2020
- Large acceptance of the nature of the problem but deep divisions over the solution now much clearer.
- Politics difficult - Who is responsible? Who needs to act? What transfer of resources is acceptable? Can we verify actions?

# Prospects for COP16, Cancun



Need to be realistic – this is a step on the way towards a legally binding global agreement.



But will look for progress on substantive elements:

- Anchoring Pledges in the Copenhagen Accord into the UNFCCC decisions;
- Measurement, Reporting and Verification;
- Reducing emissions from Deforestation;
- Financial Governance and Fast Start Finance

# Overall Conclusions



- Is climate change still a significant issue?
  - Clear evidence that humans warming the world and unrestrained emissions means increasingly risky climate change.
- Could the “sceptics” be right?
  - Scientific evidence points the other way – this is more about denial and political manipulation, not science.
- Is the IPCC fit for purpose?
  - Yes – and is committed to strengthening its management and procedures.
- What needs to be done?
  - The world needs to act together to reverse the upward course of emissions during the next 10 years.
- Where to post Copenhagen?
  - Continue to work for a global deal – and domestically put in place measures to reduce emissions.