

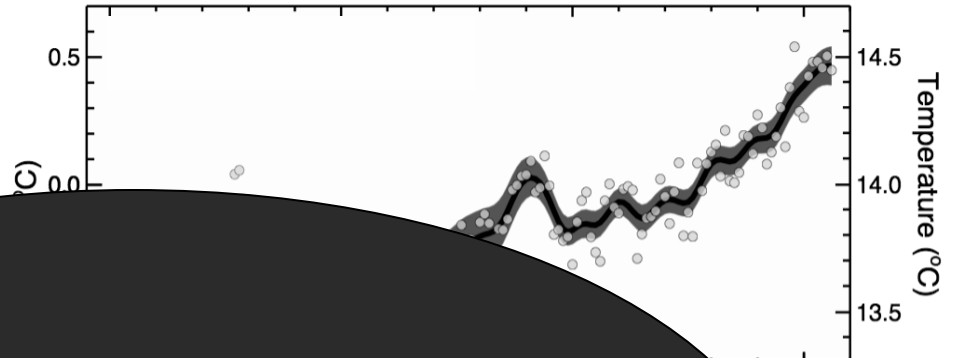
# Technology Needs in Transforming to a Low Carbon Economy

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7 November 2008, Beijing China  
Beijing High-Level Conference on Climate Change: Technology Development  
and Technology Transfer

# Scientific Observation

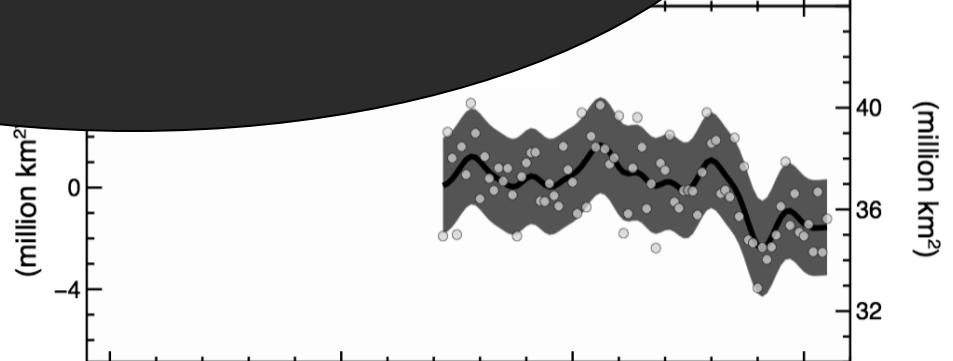
Global average  
temperature



Global av

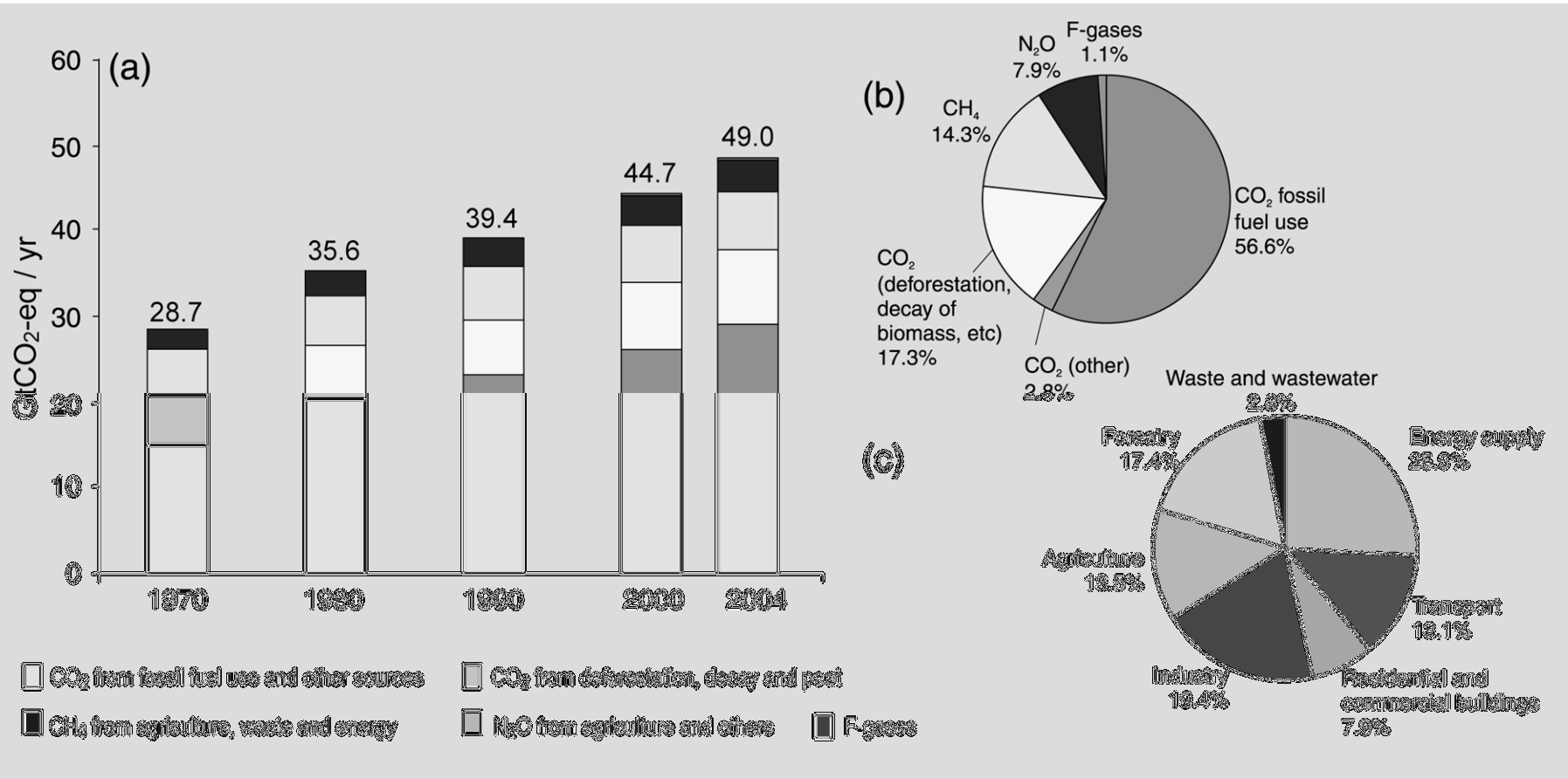
**Warming of the  
climate system is  
unequivocal**

Northern hemisphere  
snow cover



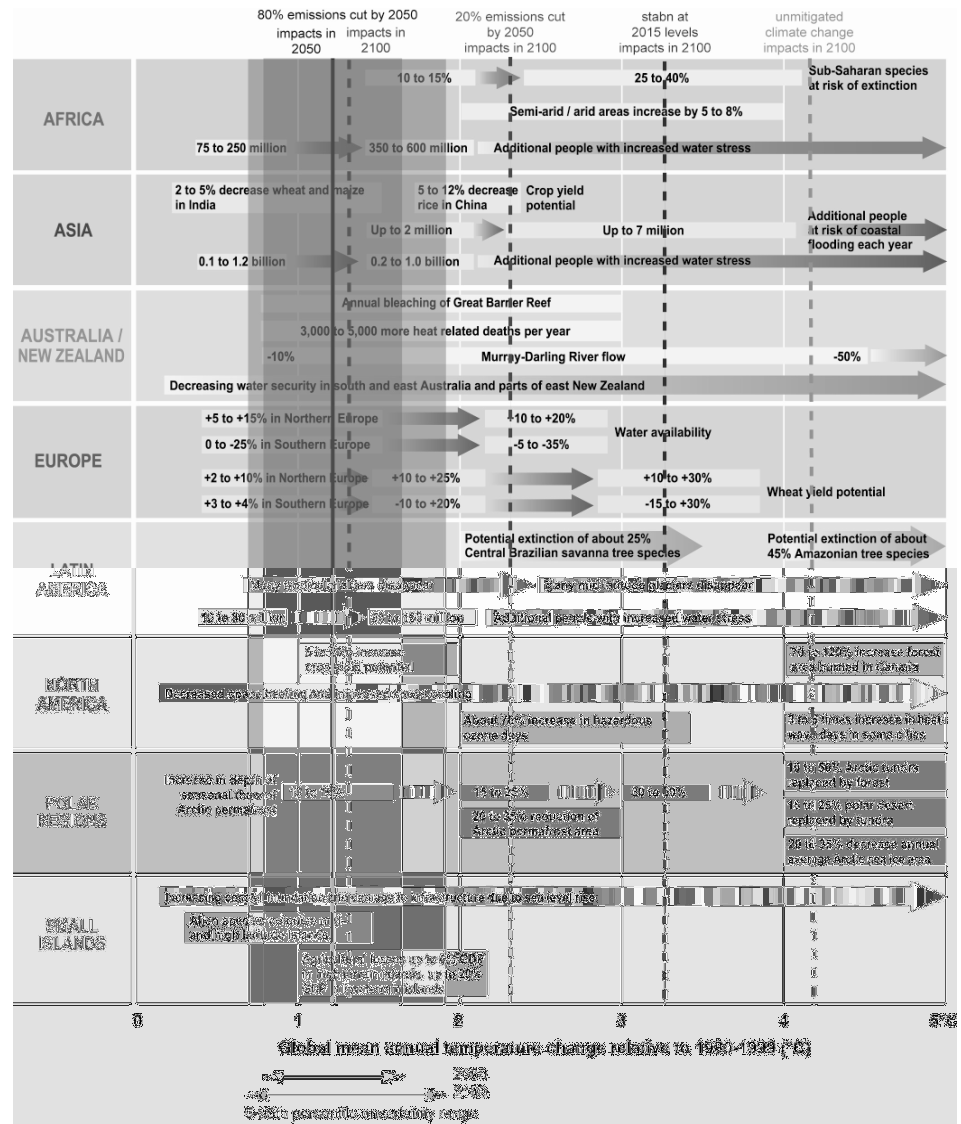
Year

# Between 1970 and 2004 global greenhouse gas emissions have increased by 70 %

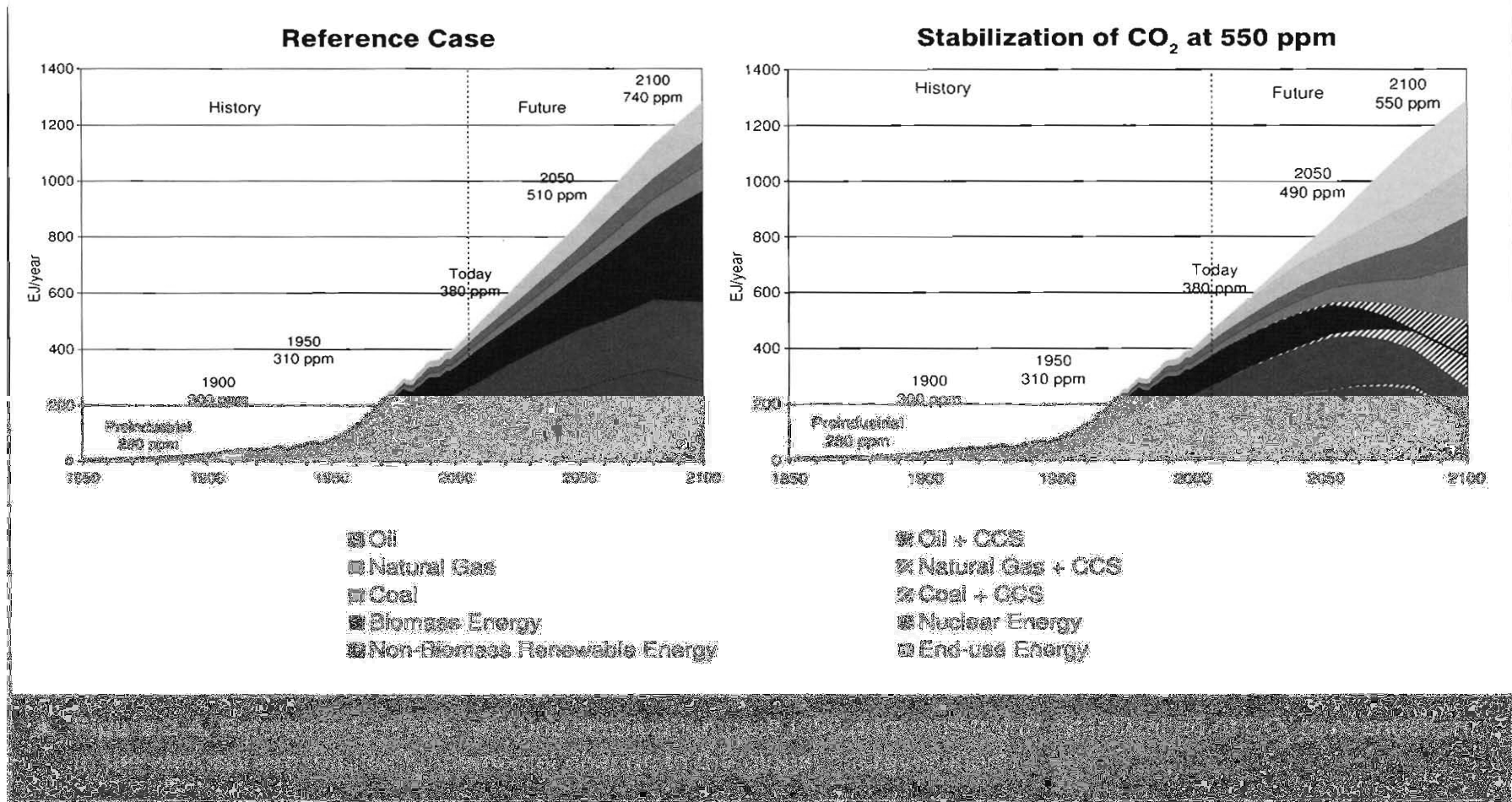


# Current committed warming makes adaptation unavoidable, worse for vulnerable countries

- G8 Summit call for 50% GHG reduction by 2050 below 1990
- EU target of 2 C above 1990
- Bali road map: Some call for 50% reduction, others 80% below 1990
- IPCC-AR4:
  - 50% reduction will not avoid major impacts and stabilisation of 450-550 ppm: EU target - 2 C above pre-industrial or 1.6 C above 1990). Serious water stress
  - 80% reduction will lead to 400-470 ppm. Will not exceed 2 C in 2050. Reduce water stress



# A Perspective of achieving a Low-Carbon World



Source: GTSP, 2007

# Energy Technology Options

- Energy Technology options are growing and most of them enhanced each other
- Implementing these technologies require treating them as a portfolio not in isolation
- None will solve the climate change problem alone or stabilise the GHG emissions
- All these technologies are in different stages of development and deployment
- These technologies will play different roles in different parts of the world (major player to niche markets)
- Deployment of these technologies to different parts of the world remain a major challenge
- These are:
  - Improved Fossil fuel technologies
  - Carbon dioxide capture and storage
  - Bio-Energy
  - Renewable energy (Wind, solar, hydro)
  - Hydrogen energy
  - End-use technologies
  - Nuclear energy