



## Case: climate change

safe

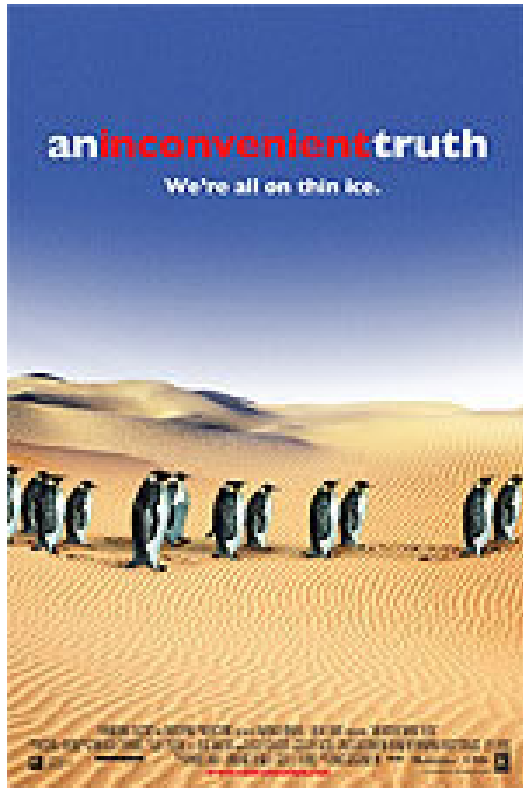
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FOODS



# Climate change

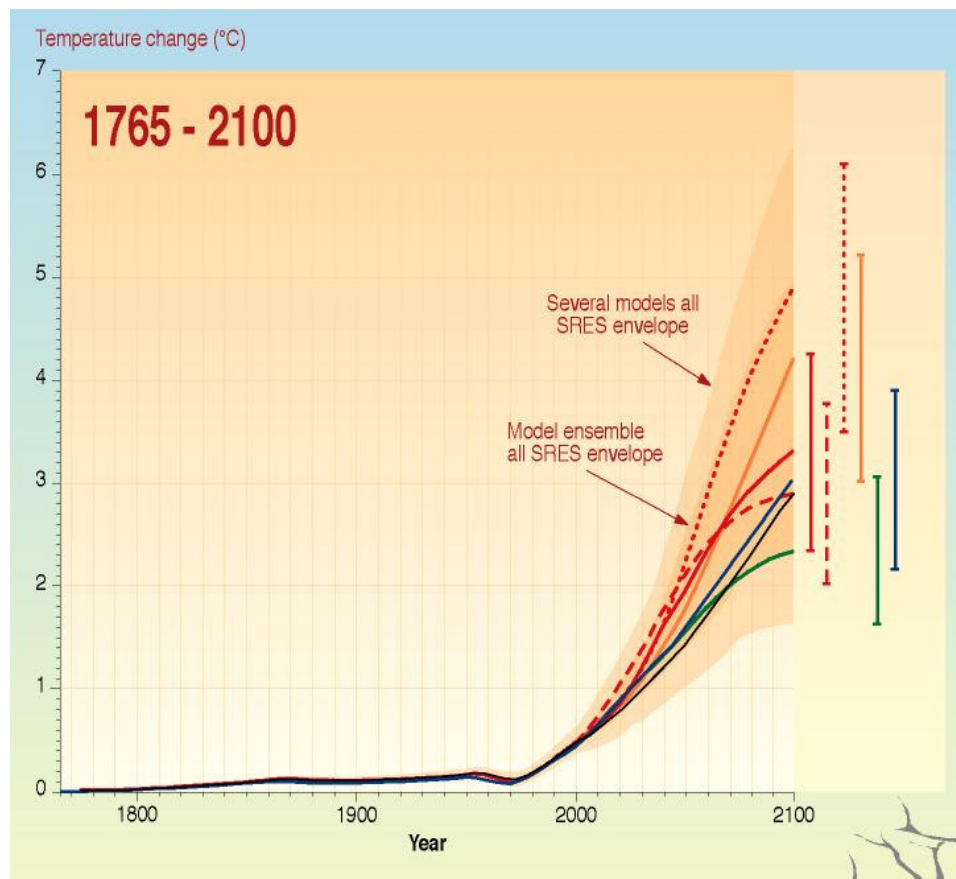
The issue of climate change is increasingly receiving attention



“Branson pledges \$3bn transport profits to fight global warming”

# Climate change

The International Panel on Climate Change predicts, for example, that temperatures will rise



Source:  
[www.ipcc.org](http://www.ipcc.org)



# Possible consequences for food safety

- Mycotoxins, fungal growth on crops
  - Aflatoxins (*Aspergillus*): hot and humid
  - Fumonisin (*Fusarium*): more temperate
- Bacterial growth at increased temperatures
  - Marine pathogens in surface water (*Vibrio*)
  - Shorter storability of products post-harvest



# Possible consequences for food safety

- Phycotoxins
  - Produced by harmful algal blooms (“red tide”)
  - Climate is one factor influencing formation
  - Similar issue: cyanobacteria in fresh water
- Viruses
  - Accumulation in water-filtering organisms
  - Shorter halflife in warmer water
- Insects
  - Primary concern (biological hazard)
  - Secondary relationships, e.g. zoonotic vectors



# Possible consequences for food safety

- Pesticide residues
  - Changes in use due to changed pests/weeds
  - Enhanced evaporation and condensation in colder environments
- Extreme weather conditions
  - Dissemination of contaminants and pathogens more likely
  - Power outages, interruption of cold chains



# Participants experiences

- Does any of the above apply to the participants' local environments?
- Which other conditions may prevail?
- How can these risks be mitigated or prevented?

**Thanks!**  
**Any questions?**

