



SNS COLLEGE OF TECHNOLOGY

**An Autonomous Institution
Coimbatore - 35**

Accredited by NBA – AICTE and Accredited by NACC – UGC with ‘A++’ Grade
Approved by AICTE , New Delhi and Affiliated to Anna University , Chennai.

DEPARTMENT OF AGRICULTURAL ENGINEERING

19AGE401 – CLIMATE CHANGE AND ADAPTATION

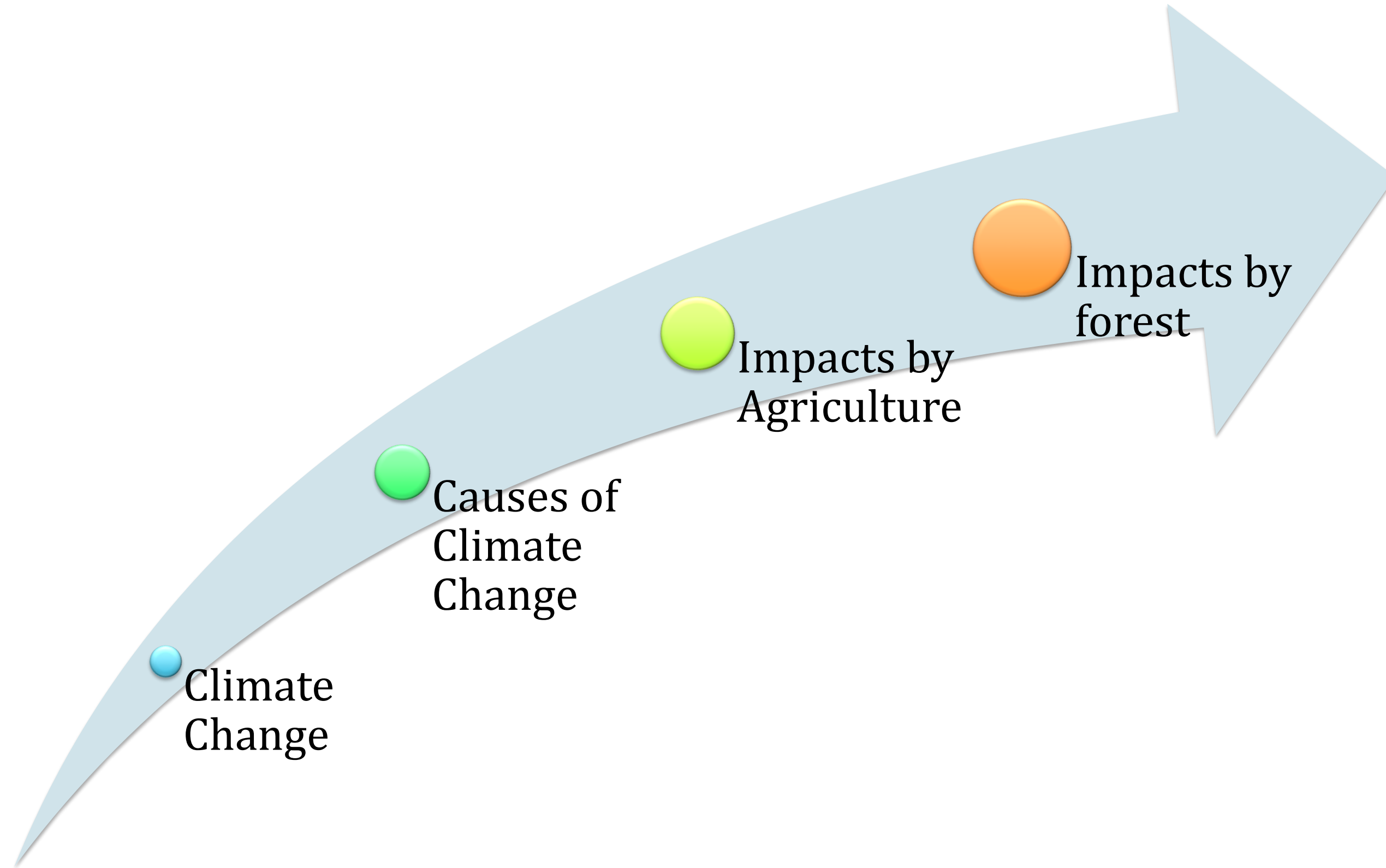
IV – YEAR VII SEMESTER

UNIT 3 – IMPACTS OF CLIMATE CHANGE

TOPIC 4 – WATER RESOURCES

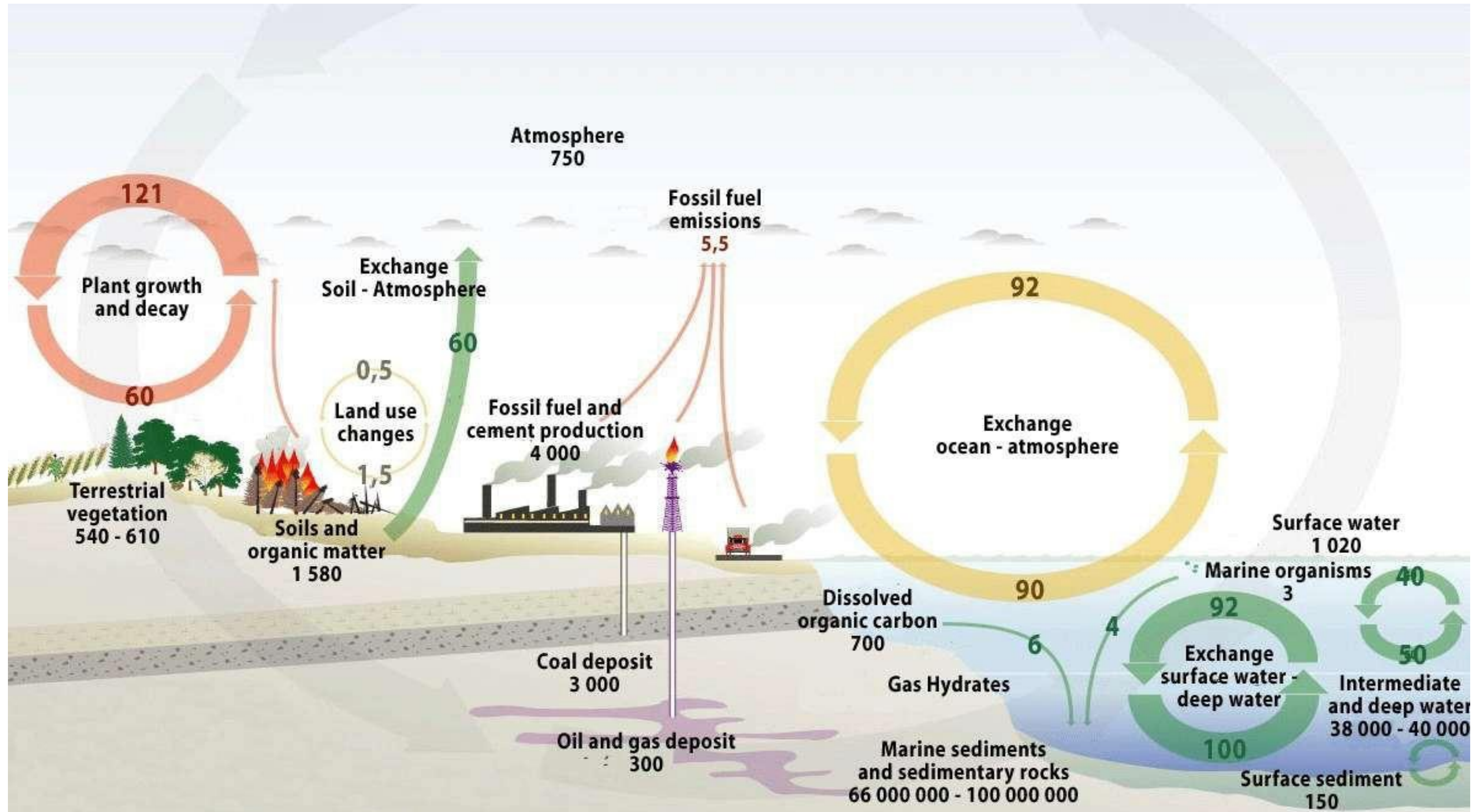


Last Class Review



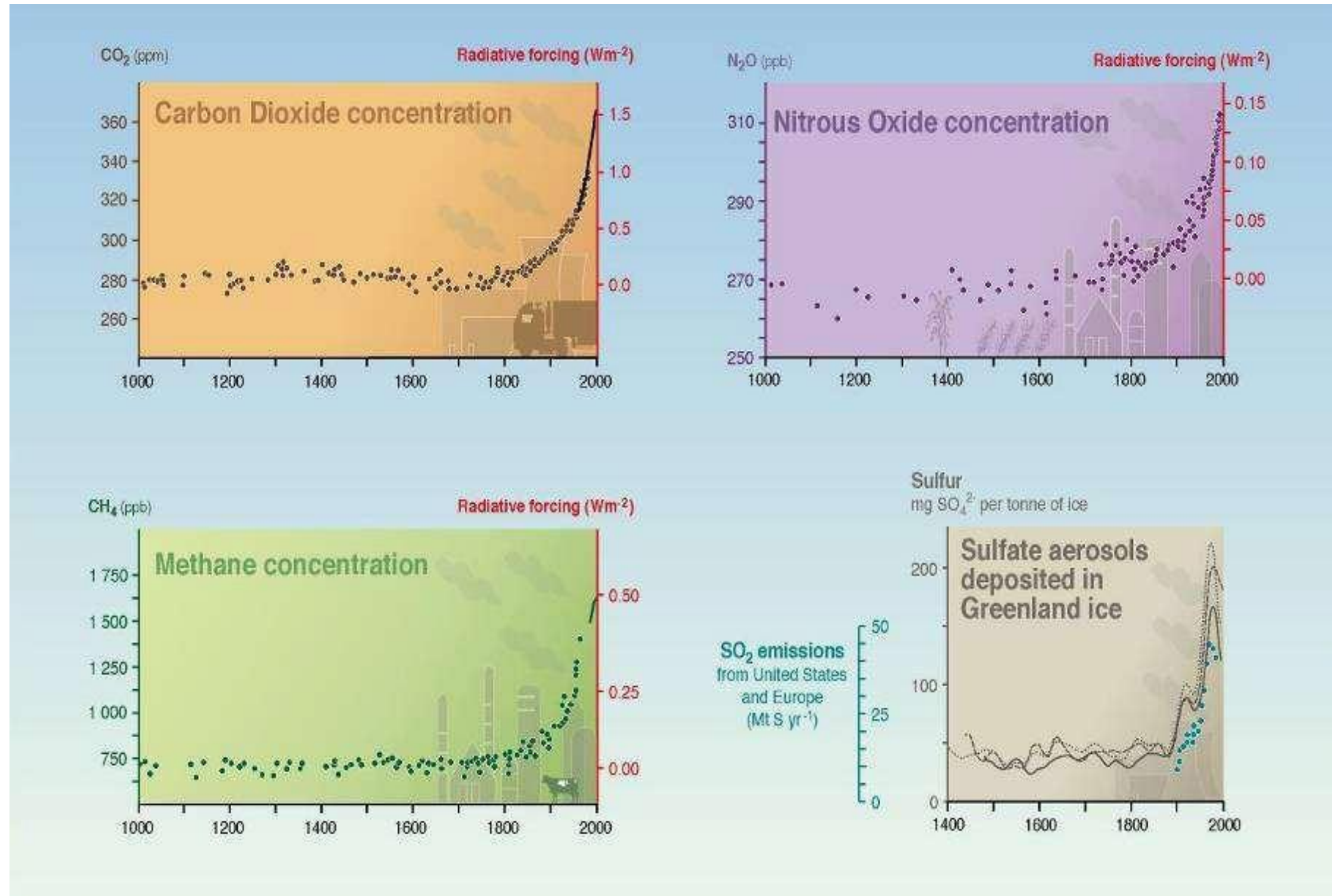


Present Carbon Cycle



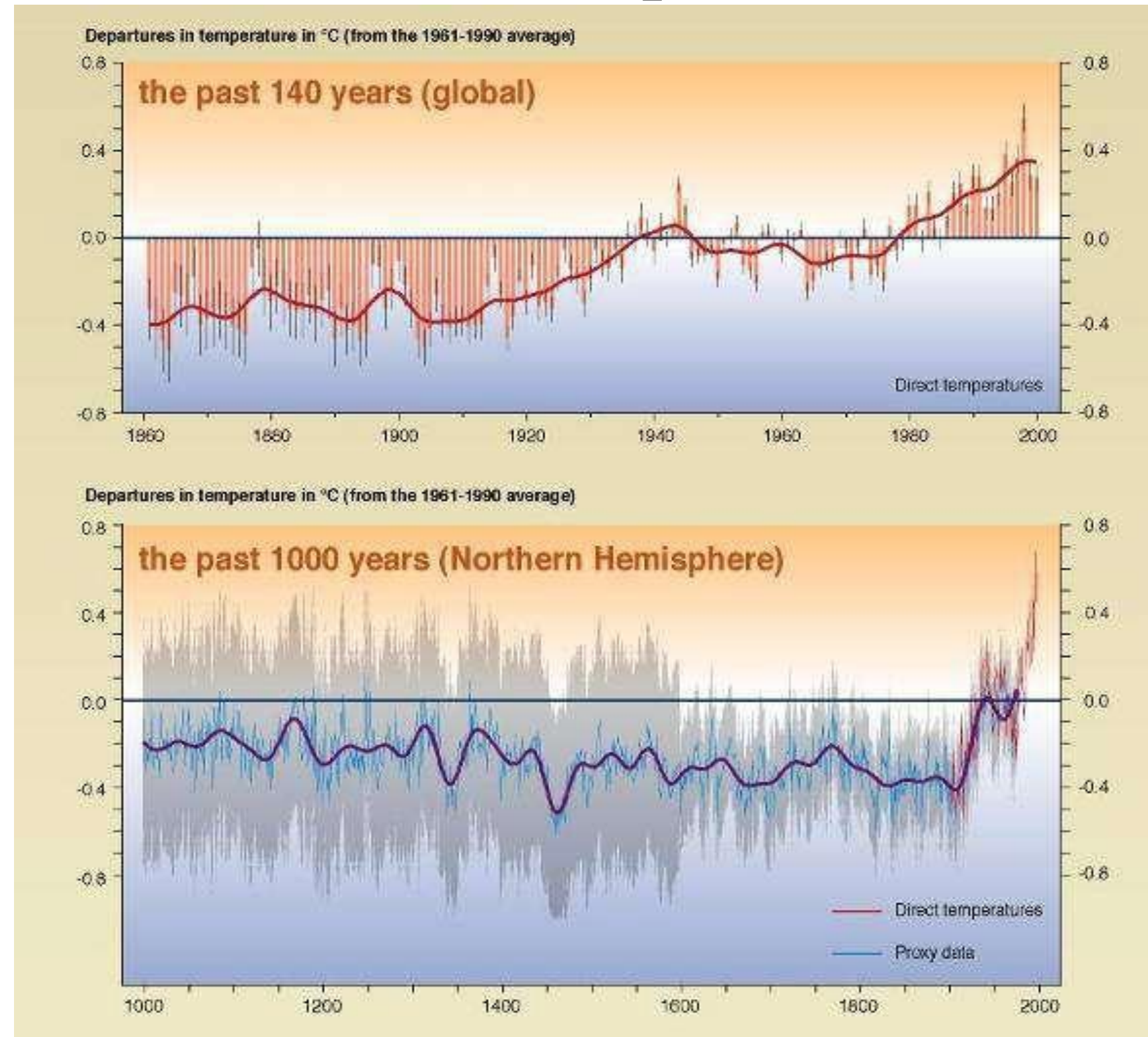


Human activity influence



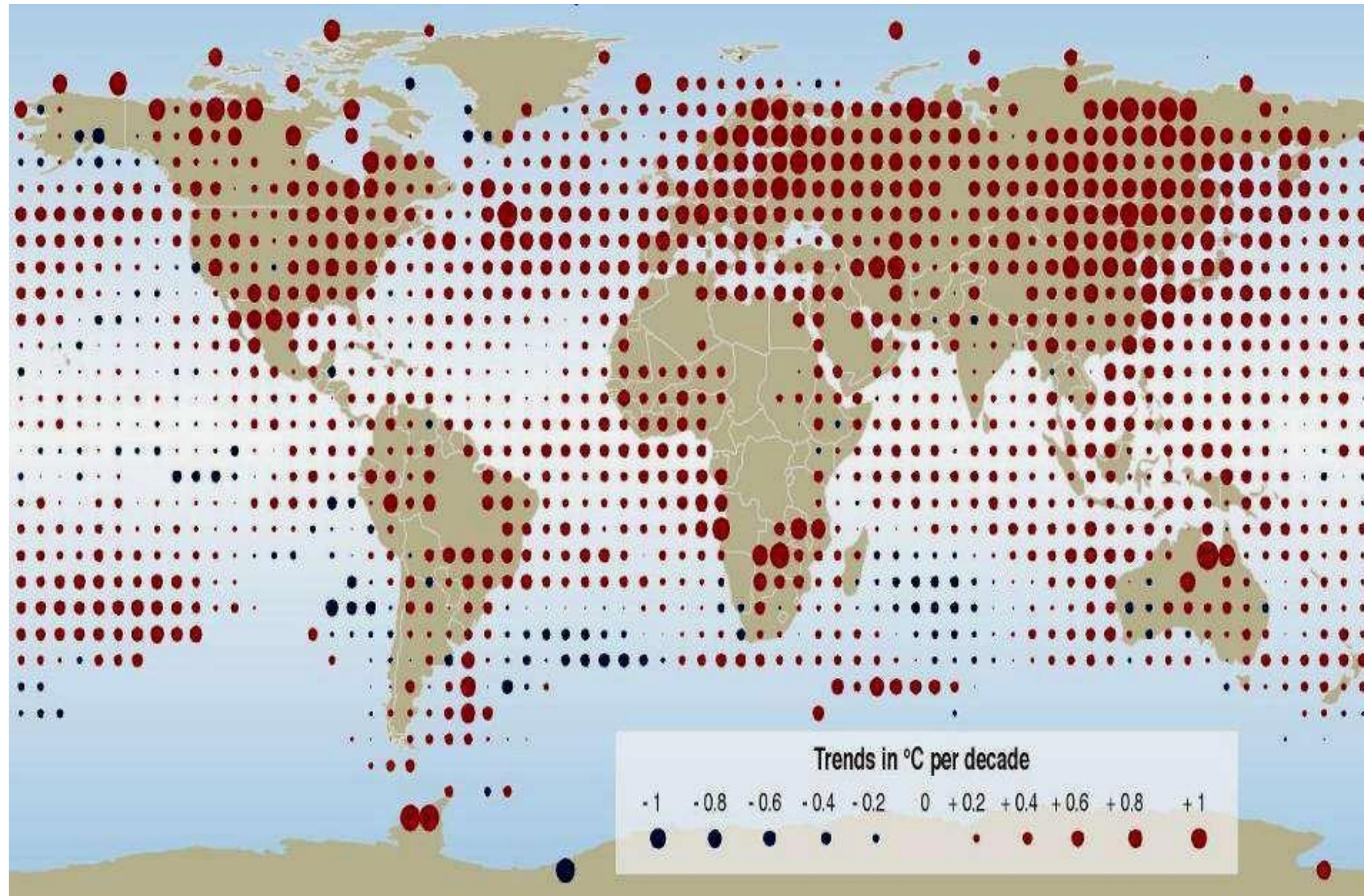


Variation of the temperature on Earth





Temperature trends (1976 to 2000)





Assessment

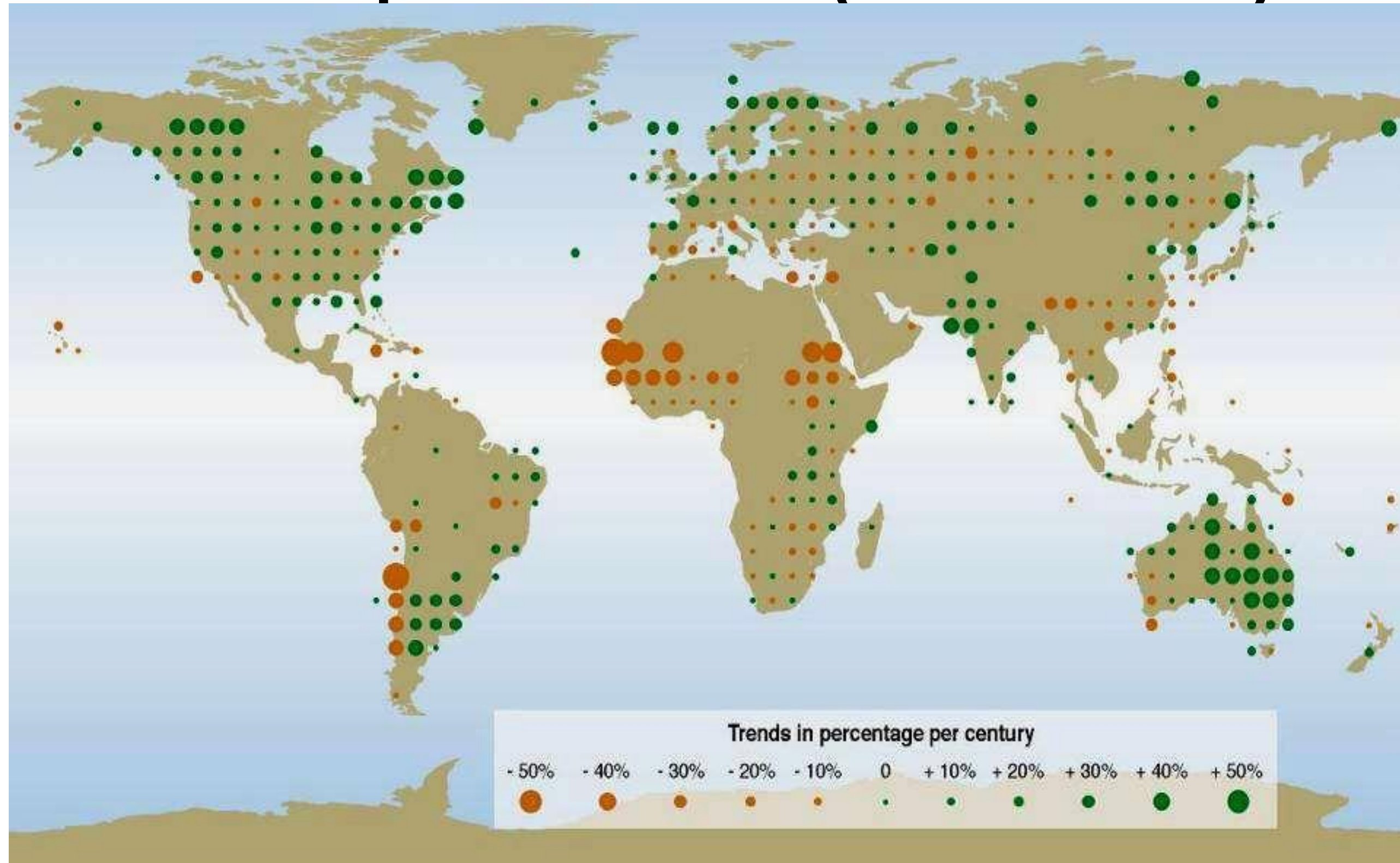


- **What are the impacts on climate by forest**



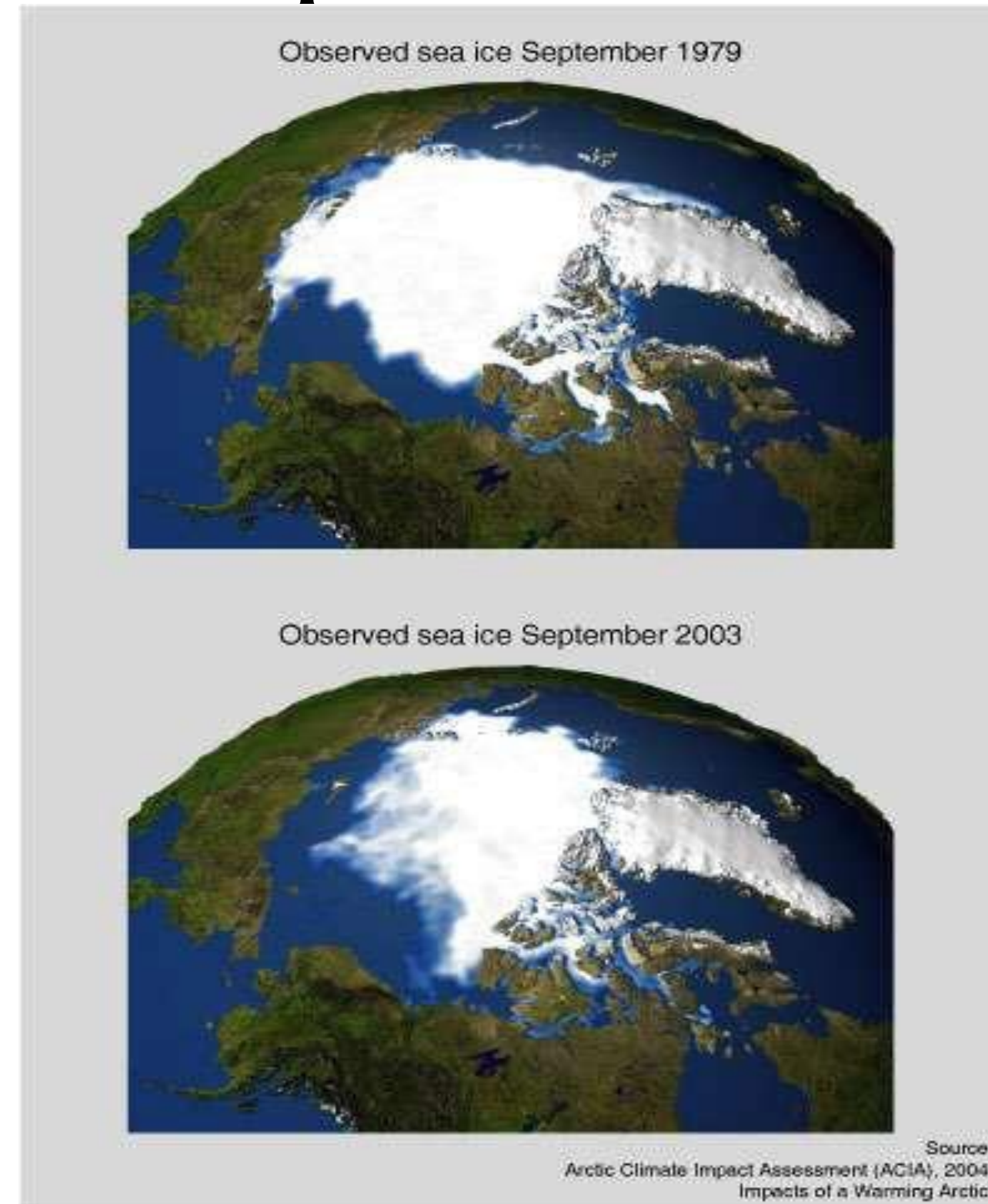


Precipitation trends (1900 to 2000)



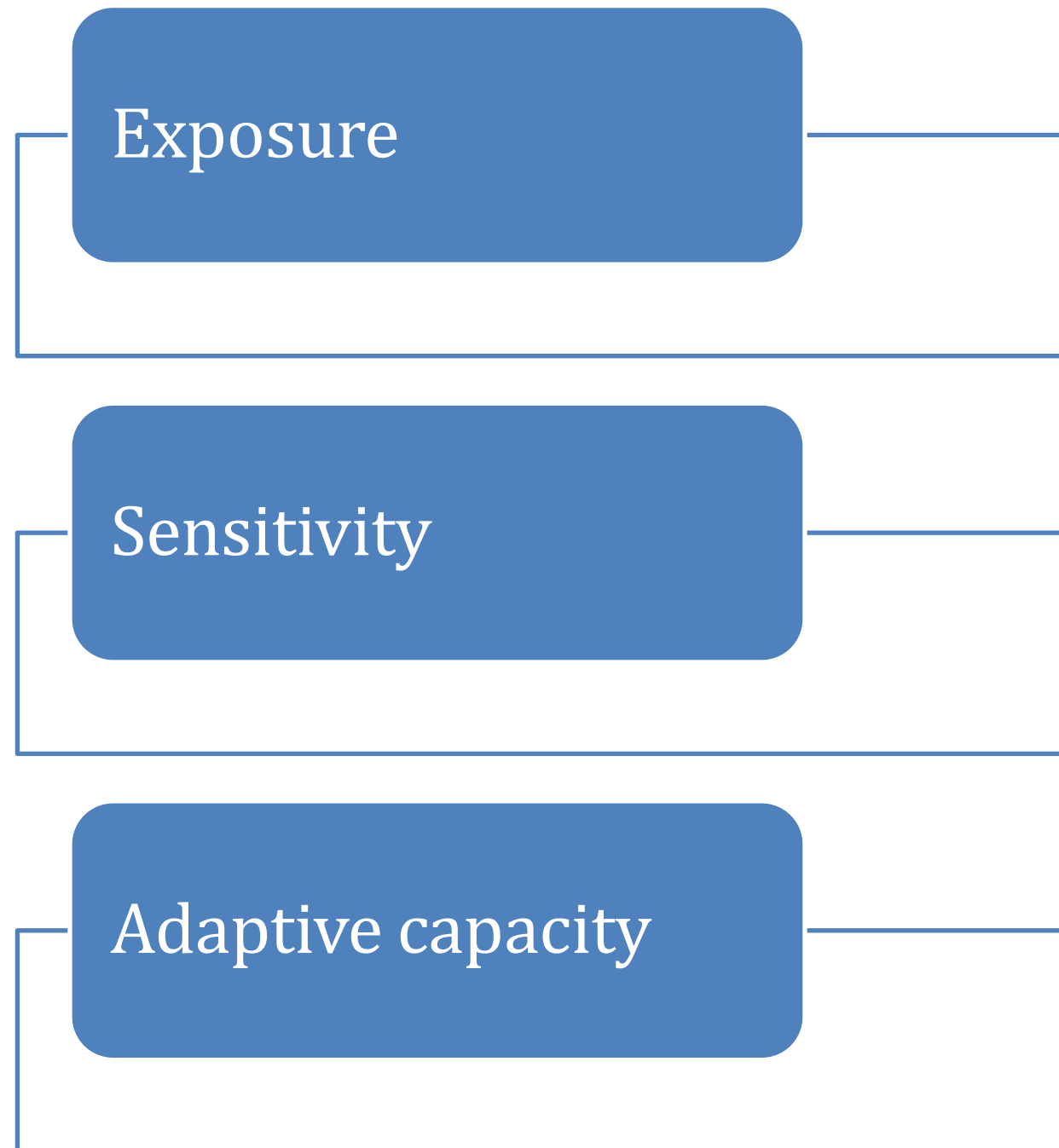


Visual impact of Climate Change





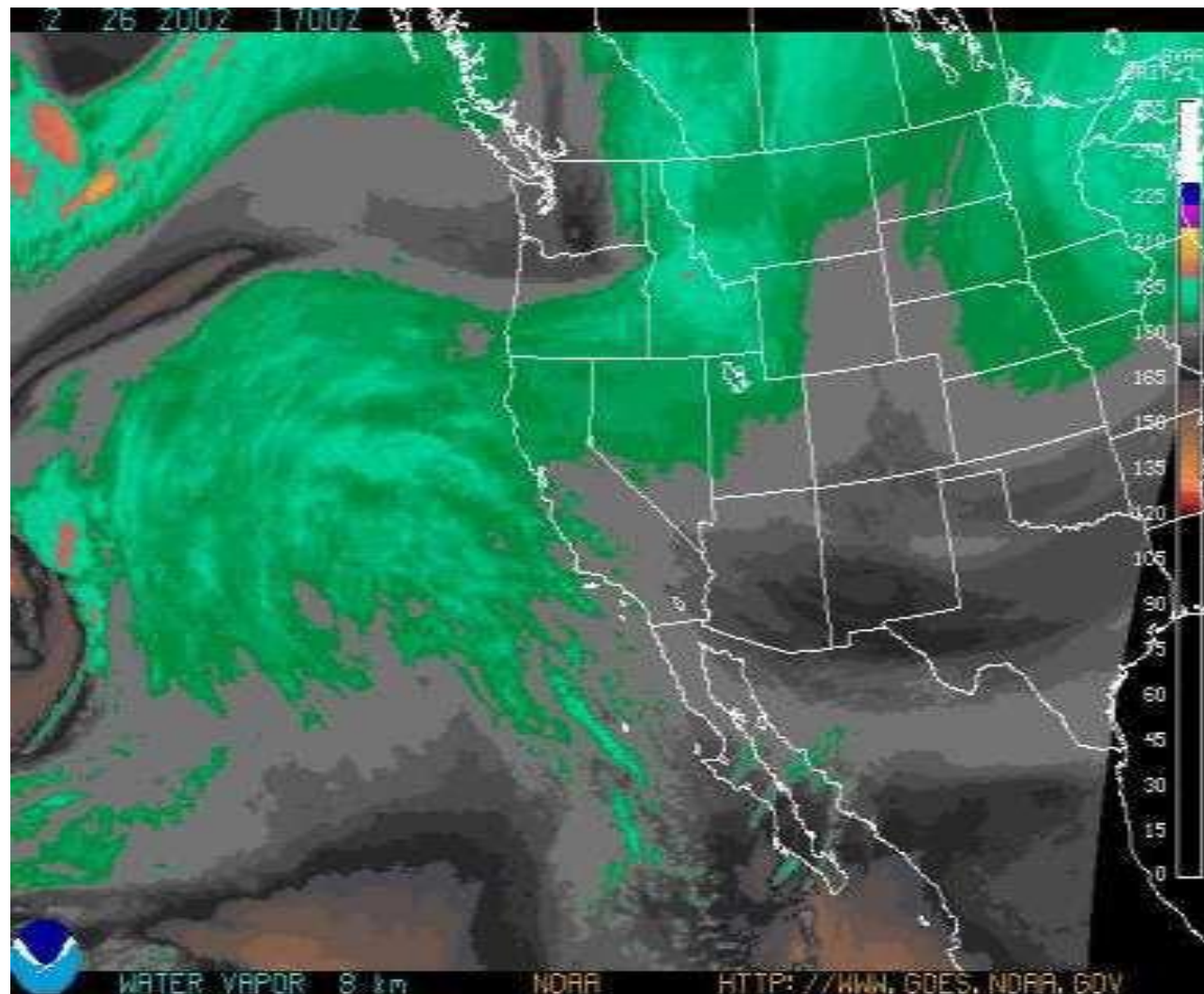
Vulnerability



❖ Vulnerability to climate change is the risk of adverse things happening. vulnerability is a function of three factors



Exposure



- Exposure is what is at risk from climate change, e.g.,
 - ✓ Population
 - ✓ Resources
 - ✓ Property
- It is also the climate change that an affected system will face, e.g.,
 - ✓ Sea level
 - ✓ Temperature
 - ✓ Precipitation
 - ✓ Extreme events



Sensitivity



- ❖ Biophysical effect of climate change
 - Change in crop yield, runoff, energy demand
- ❖ It considers the socioeconomic context, e.g., the agriculture system
- ❖ Grain crops typically are sensitive
- ❖ Manufacturing typically is much less sensitive



Adaptive Capacity



- Capability to adapt
- Function of:
 - ❖ Wealth
 - ❖ Technology
 - ❖ Education
 - ❖ Institutions
 - ❖ Information
 - ❖ Infrastructure
- Having adaptive capacity does not mean it is used effectively



Reference Videos





See You at Next Class!!!!