



# Global Climate Change

**Week 1**

30/6/2017

# Summary

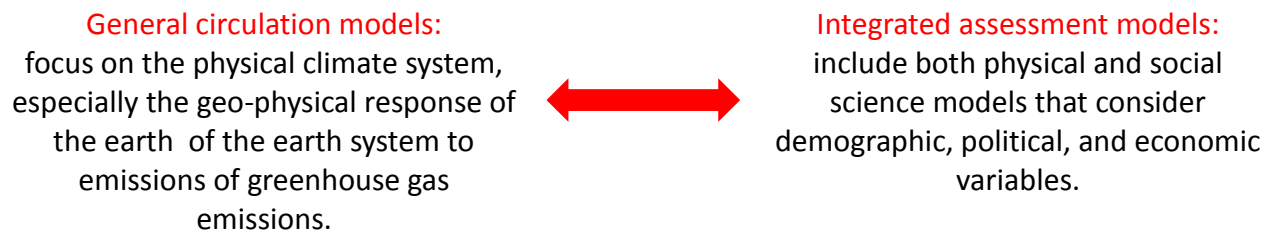
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We looked for the best solution to global climate change and the problems in current global governance framework.

## Results

### A. Statistical analysis models of climate change mitigation

#### IAMs (Integrated Assessment Models) + GCMs (General Circulation Models)



1. effect of global mitigation action delayed by **two decades** is much more pronounced than the consequences of uncertainty surrounding mitigation technology availability and future energy demands, and renders even the geophysical uncertainties almost irrelevant for the 2°C
2. if mitigation action is delayed, simply **spending more money on the problem in the future** will not increase this probability beyond certain limits imposed by the Earth system
3. **Policy implications:** robustly safeguarding the future achievement of the oft-discussed 2°C objective requires that society embarks on a higher-efficiency, lower-energy-demand course well before 2020 in the context of sustained, concerted and coordinated mitigation efforts.
4. **66% possibility.**

### B. What's wrong with the current global governance framework?

**Shirking responsibility, interest conflicts (economy VS emission), low barrier for exit, lack of motivation system, poor improvement on temperature(2050: 0.02-0.28°C)**

#### Kyoto protocol

1. US-Bush administration
  - lack of sincerity to reduce green house emission by making its own effort
  - Harm the economy and hurt the workers
  - Criticize the little responsibility of developing countries
  - Skepticism on the science

2. Japan:

- Criticize China for its zero-limit on greenhouse gas emission
- Criticize US for dropping out

3. Consequence: all the participants only take up 27% of the global greenhouse emission

**Paris Agreement:**

US-harm the economy

## Detail

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### Reasons of Global Warming

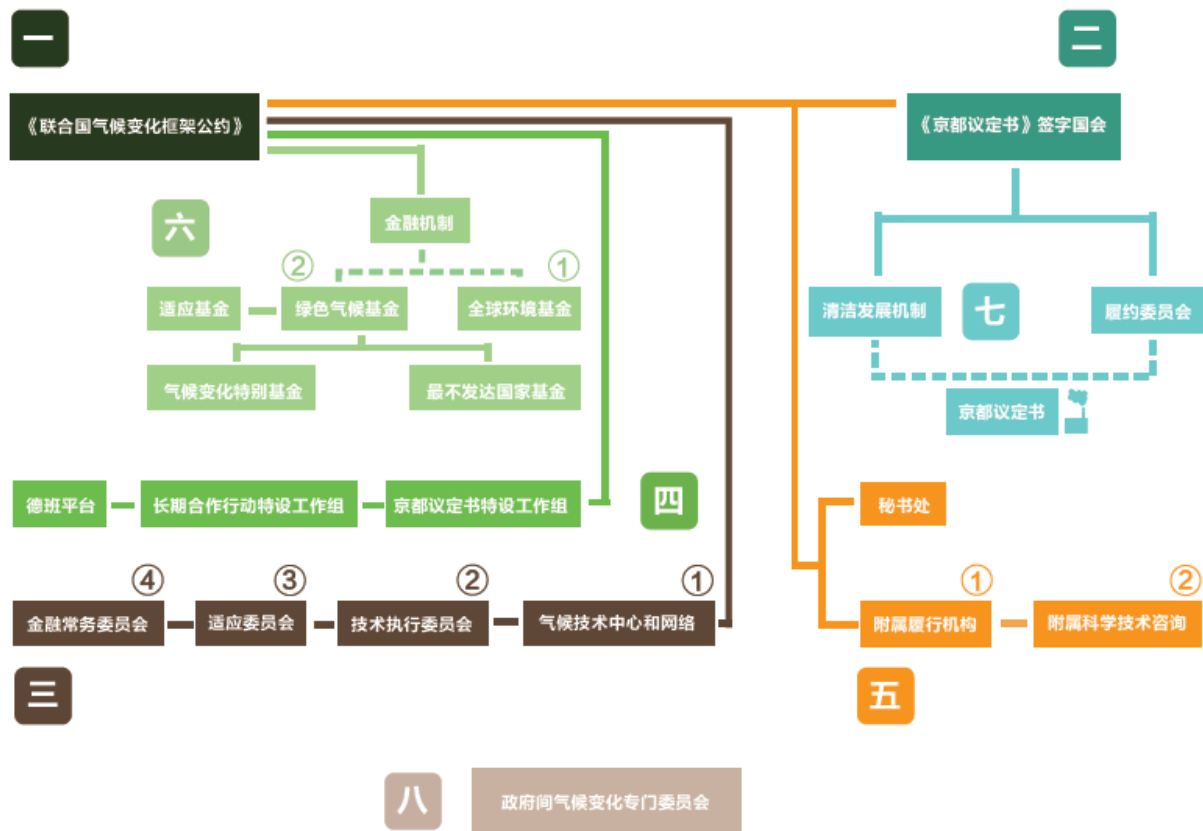
5% nature factors + 95% human factors

participation capacity	Population growth rate	<b>Temperature rise</b>
evaporation capacity	CO2 emission	
GDP per capital	forest cover	

### Solutions Today

- Reduce fossil fuels burning
- Use biofuels, wind power
- Plant-derived plastic
- Closer work place
- Eat less meat: vegetarianism
- Reduce, reuse, recycle
- Increase forest cover area
- Carbon transaction

## Current Governance Framework



1. 《联合国气候变化框架公约》缔约方会议 (COP)
2. 《京都议定书》签字国会议 (CMP)
3. 委员会
4. 工作组
5. 附属机构
6. 金融机制
7. 清洁发展机制
8. 政府间气候变化专门委员会

## Plan For Next Week

1. Another team structure

Group A: focus on finding latest analysis models in literature

Group B: focus on running the models and do simulation

Common work: good governance cases analysis :

- Amazon forest
- New Zealand
- Singapore

## 2. New concentration

- what's the best model to use in analysis, then to run it.
- what's the essential points we need to add in the current governance model?

### **So, the direction comes to:**

How to convince countries to adopt a sustainable economy?

How to motivate multi-national companies to participate in cross-country cooperation?