

# Climate Policy and International Negotiations

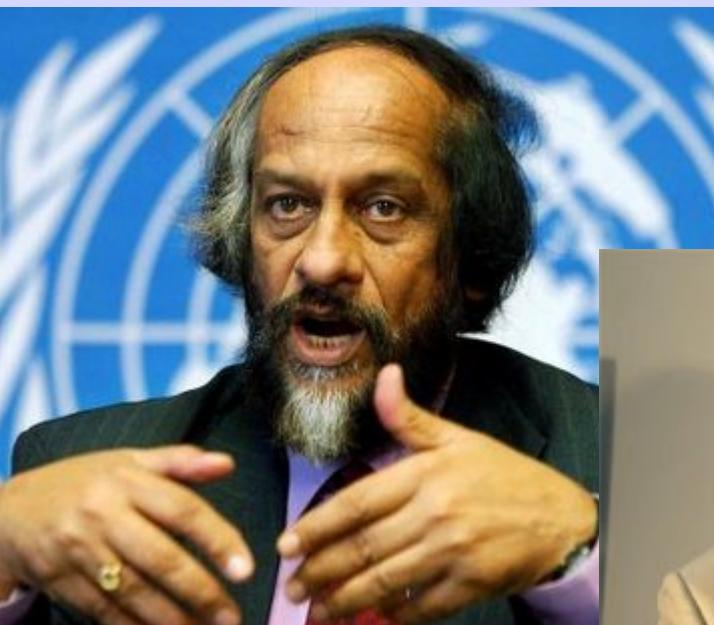
Prof Alice Bows-Larkin based on work by Dr John Broderick  
@aliceblarkin, @johnfbroderick

Today's team: Dr Christopher Jones ('IPCC modeller') @energy\_cj  
Dr Bec Cunningham ('IPCC Scientist'); Dr Ruth Wood ('IPCC Scientist')  
Mechanical, Aerospace and Civil Engineering  
Tyndall Centre for Climate Change Research

# Our aims today

1. To illustrate interactively how different emission pathways result in different temperature outcomes
2. To illustrate tensions and trade-offs within international climate change negotiations

# UNFCCC & Paris 2015





United Nations  
Framework Convention on  
Climate Change

# The UNFCCC & Kyoto

## UNFCCC Objective (Article 2):

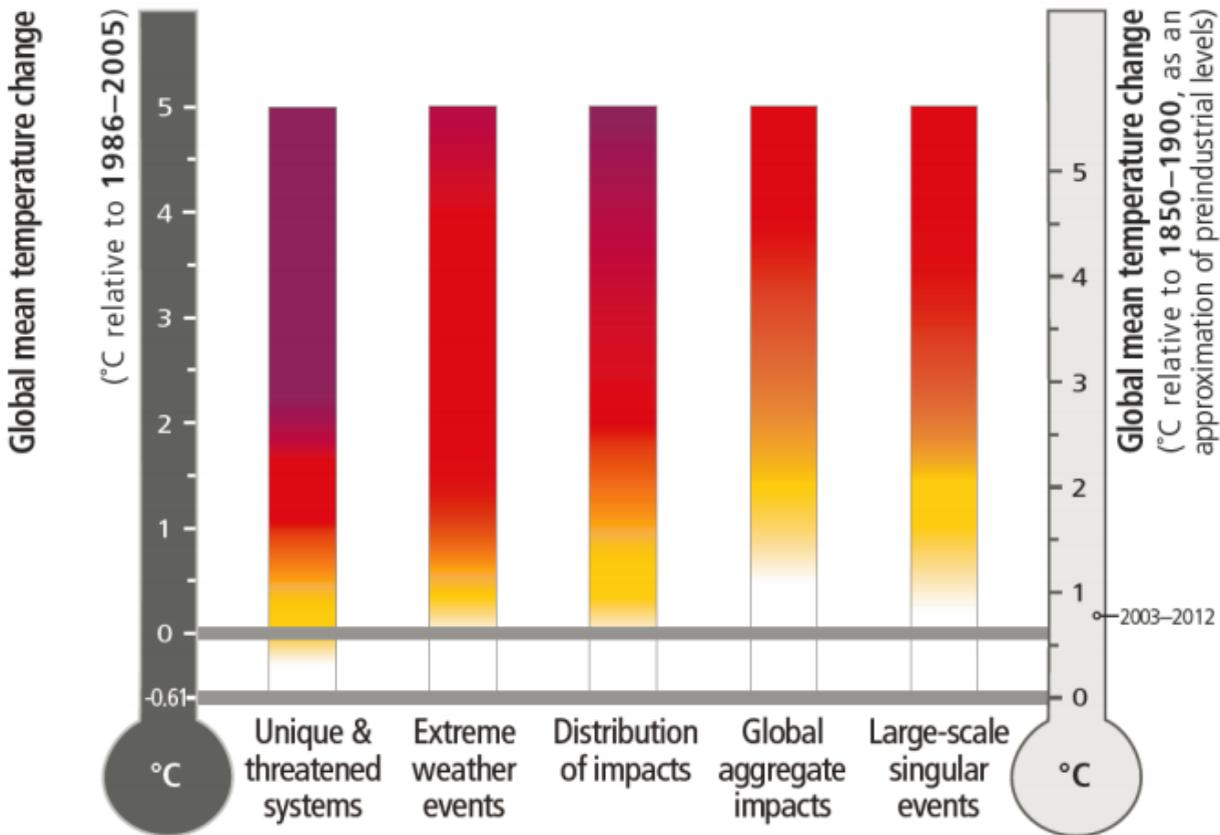
*...**stabilization** of greenhouse gas concentrations in the atmosphere at a level that would **prevent dangerous anthropogenic interference** with the climate system. Such a level should be achieved within a time frame sufficient to allow ecosystems to **adapt naturally** to climate change, to ensure that **food production is not threatened** and to enable **economic development to proceed in a sustainable manner**.*

# The UNFCCC & Kyoto



United Nations  
Framework Convention on  
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## IPCC WGII AR5 Summary for Policymakers



*...prevent dangerous anthropogenic interference...*

Avoid a **2°C** temperature rise above pre-industrial levels

### Level of additional risk due to climate change

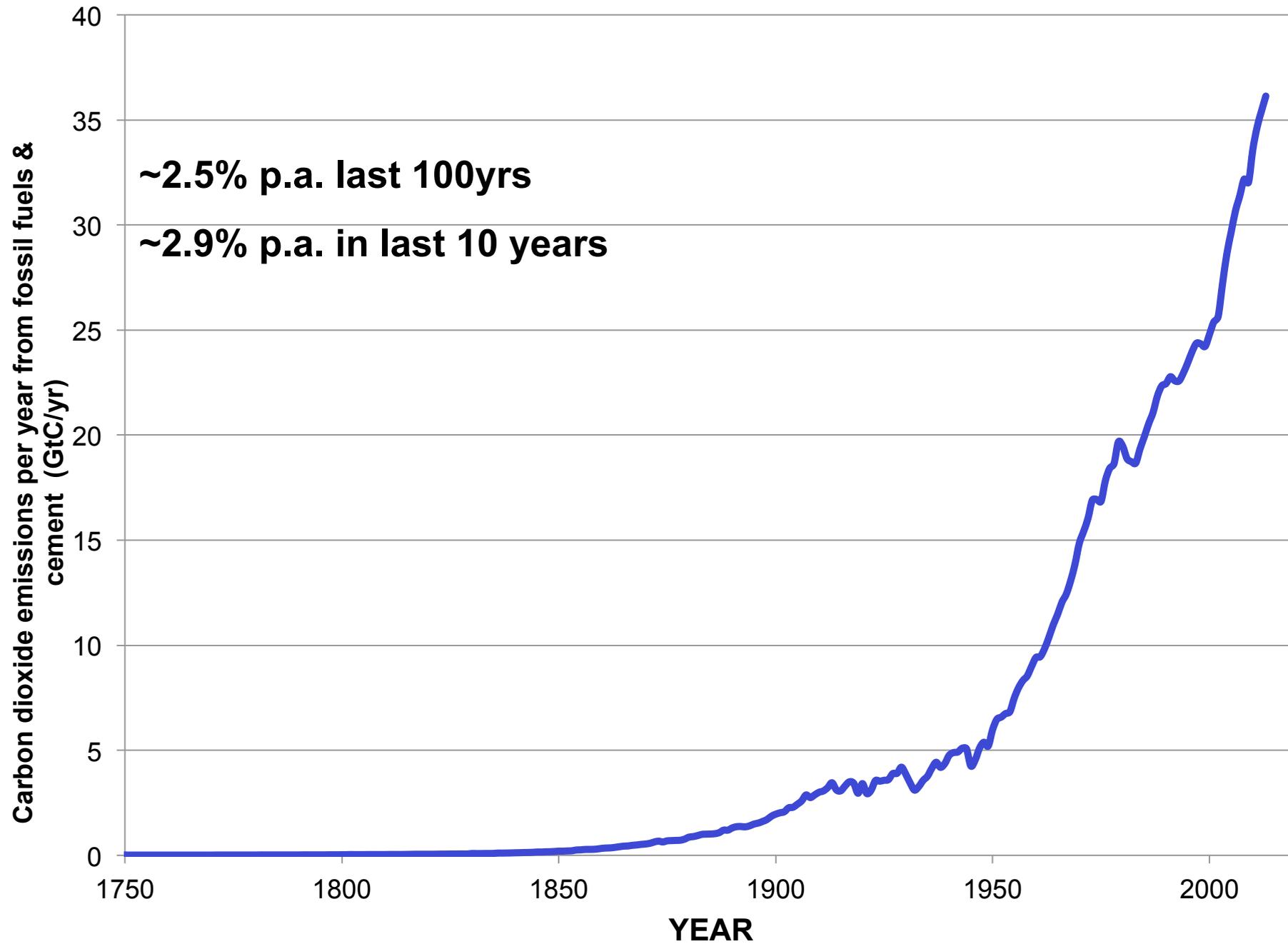
Undetectable      Moderate      High      Very high

# What's at stake?

## Different global futures

- Climate **impacts** on ecosystems and society
  - Winners, losers and adaptation
- **Extent** of climate change
  - Warming, cooling, rainfall and extreme weather events
- **Emissions** trajectories
  - And the policies to alter economy and society

# What's the challenge?



# CO<sub>2</sub> Concentrations in Ice Core Samples and Projects for the Next 100 years

- Vostok Record
- IPCC IS92a Scenario
- Law Dome Record
- Mauna Loa Record

Projected  
(2100)

Current (2015)  
is 400ppm

ppm

700  
650  
600  
550  
500  
450  
400  
350  
300  
250  
200  
150

400,000

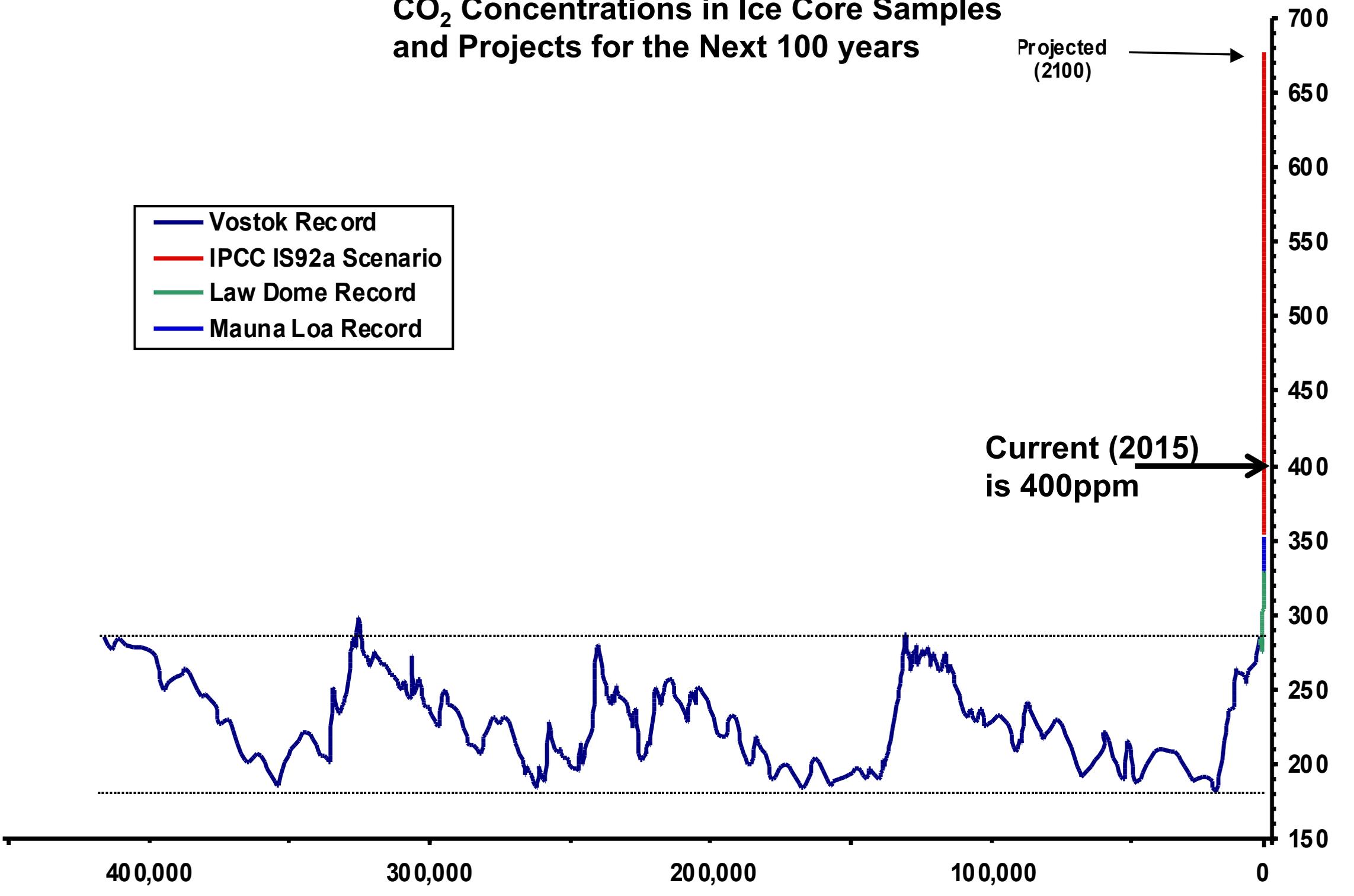
300,000

200,000

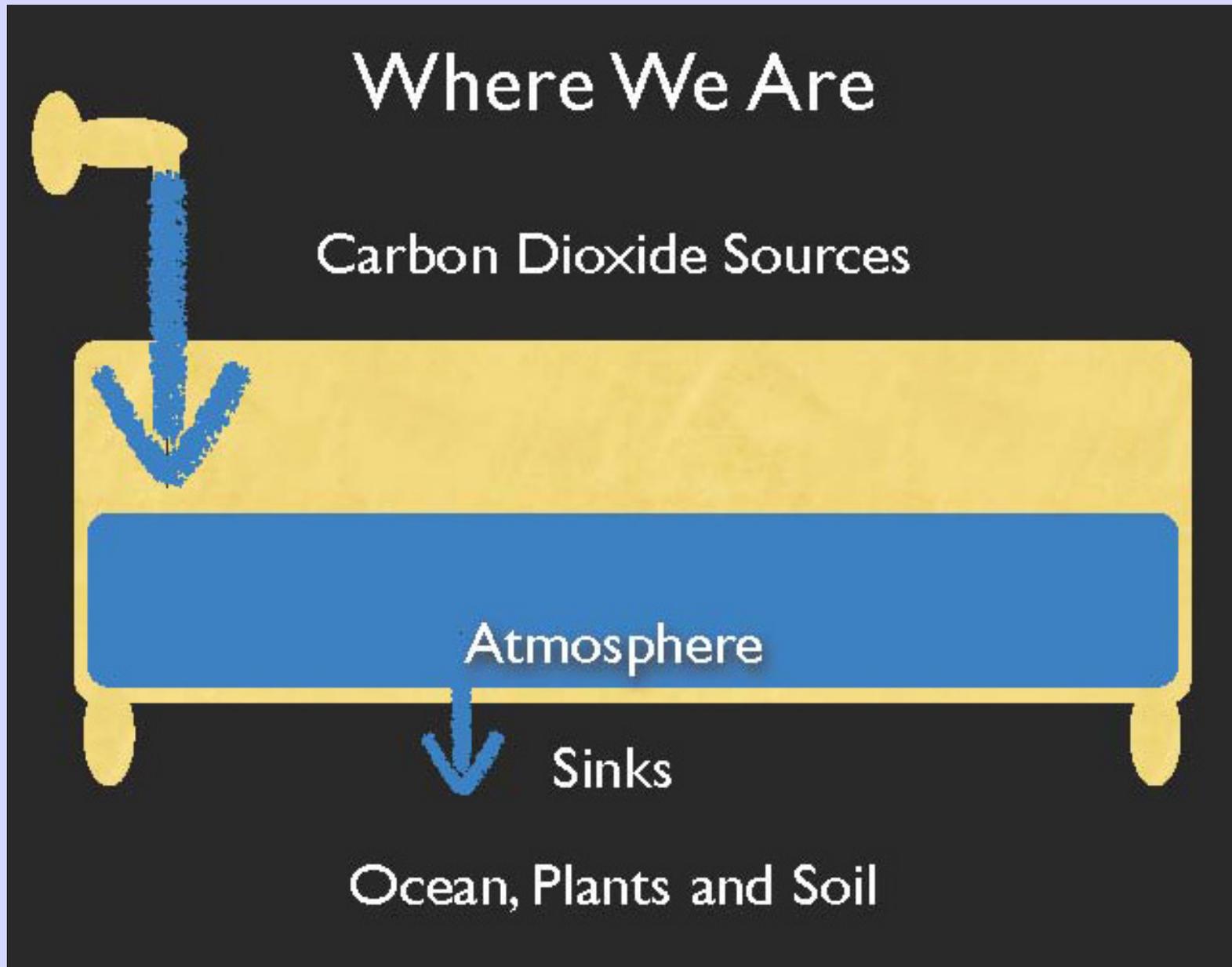
100,000

0

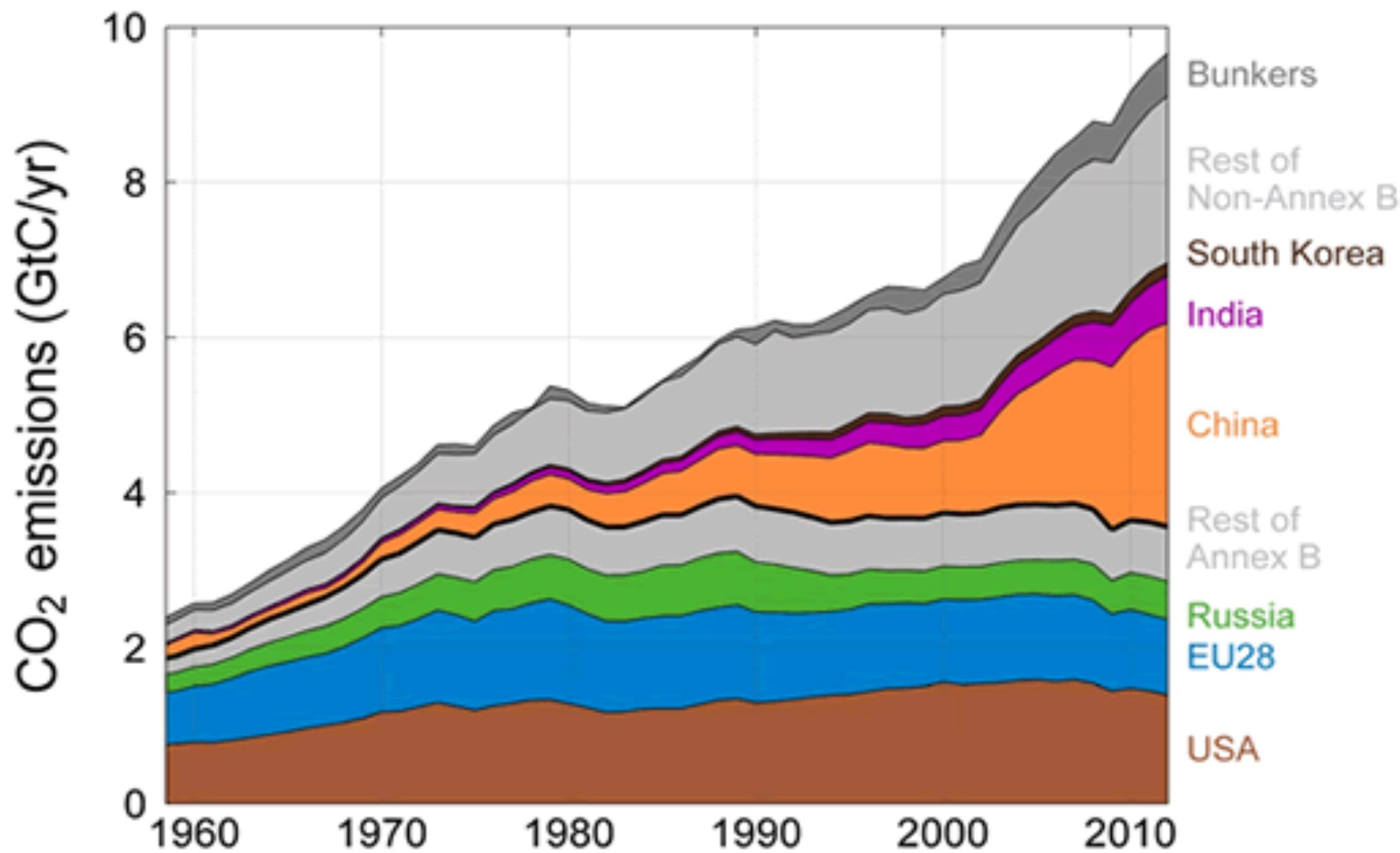
Years Before Present



# Bathtub analogy



# Global Fossil Fuel Emissions by Country

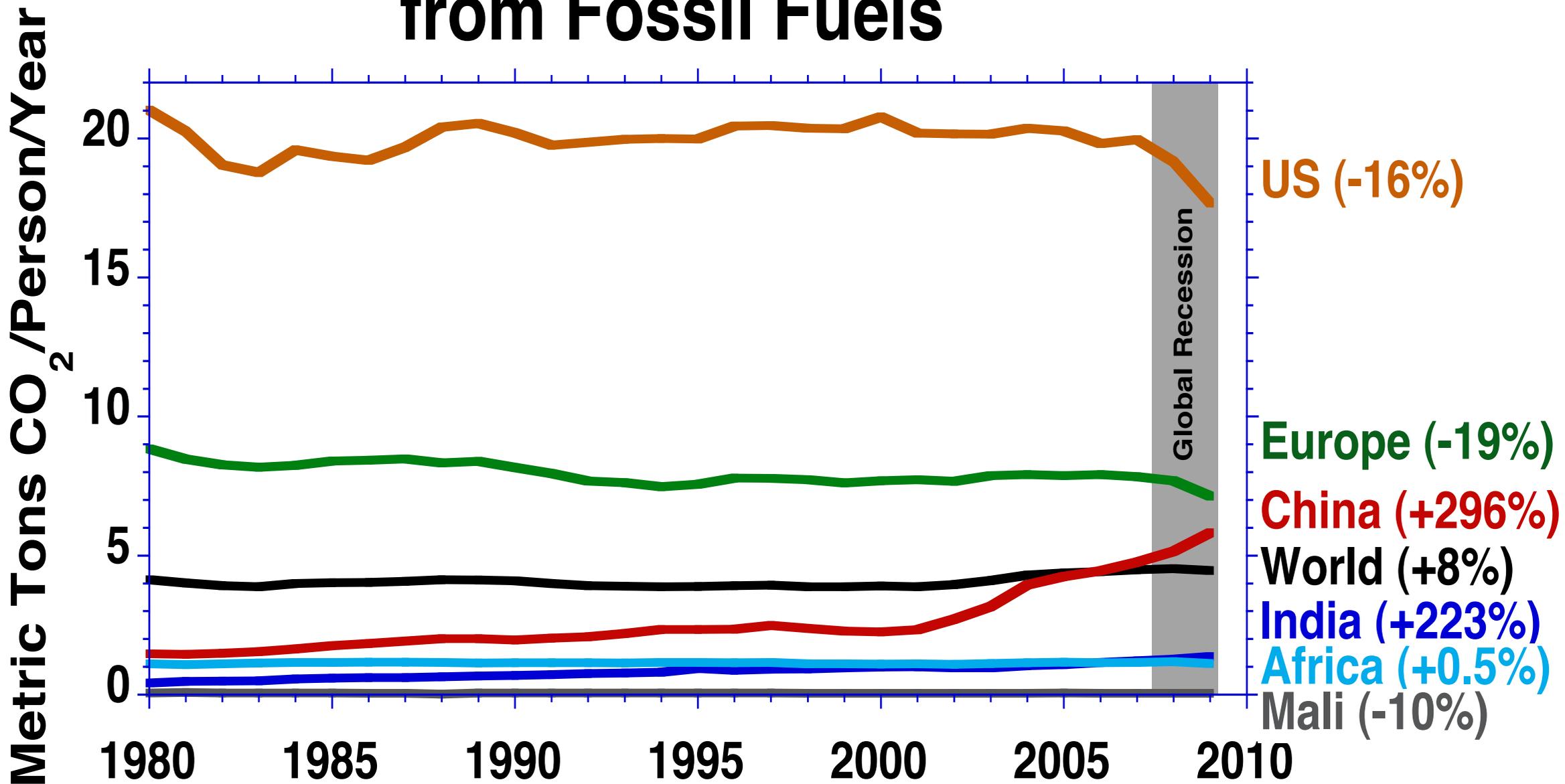


*Equity dimension...*





# World per Capita Carbon Emissions from Fossil Fuels



Source: DOE/EIA

# Current International Climate Regime

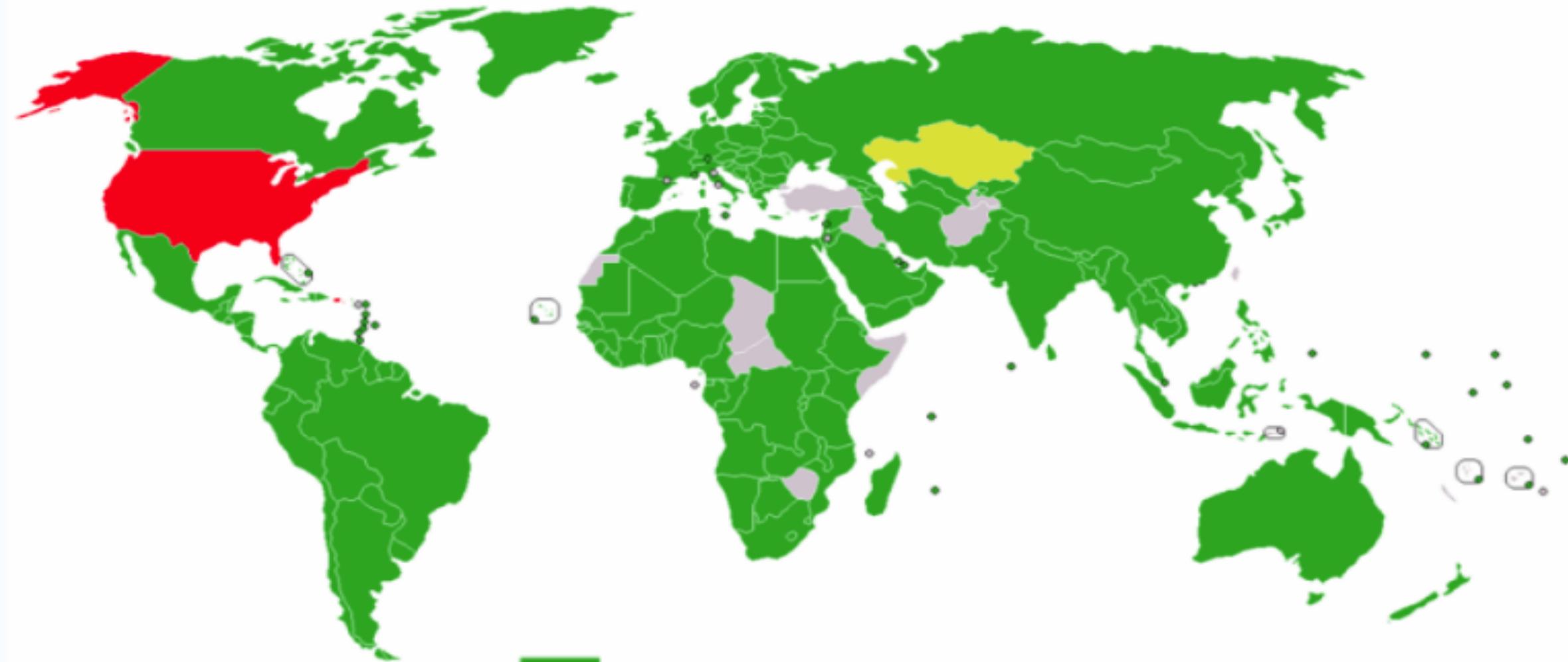
# The UNFCCC timeline



United Nations  
Framework Convention on  
Climate Change

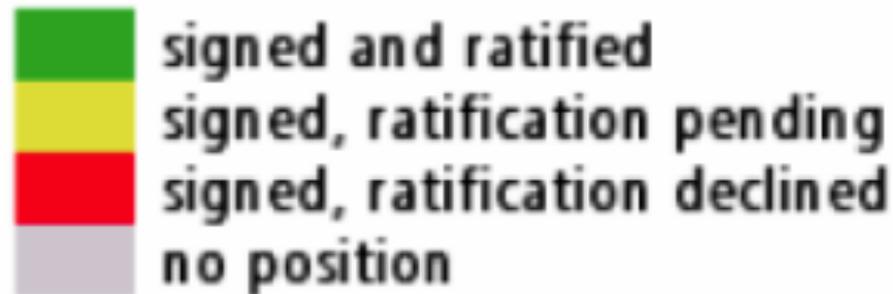
- 1979 — The first World Climate Conference (WCC) takes place organised by WMO.
- 1988 — The Intergovernmental Panel on Climate Change is set up by WMO and UNEP.
- 1990 — IPCC's first assessment report released. IPCC and second World Climate Conference call for a global treaty on climate change.
- **1992 — At the Earth Summit in Rio, the UNFCCC is opened for signature**
- 1995 — The first Conference of the Parties (COP 1) takes place in Berlin.
- **1997 — Kyoto Protocol formally adopted in December at COP3.**
- **2000 – Collapse of Hague negotiations, US declares no intention to ratify, treaty is dubbed '*unfair to America*'**
- 2001 — Marrakesh Accords detailing the KP procedures.
- **2005 — Entry into force of the Kyoto Protocol.** The first Meeting of the Parties to the Kyoto Protocol (MOP 1) takes place in Montreal.
- 2007 — IPCC's Fourth Assessment Report released (AR4). At COP13, Parties agreed on the Bali Road Map, which charted the way towards a post-2012
- 2008 – Kyoto Commitment Period begins.
- 2009 — Copenhagen Accord drafted at COP15 in Copenhagen. This was taken note of by the COP. Countries later submitted emissions reductions pledges or mitigation action pledges, all non-binding.
- 2011 – Durban Platform for Enhanced Action, Kyoto parties to continue, financing mechanisms launched
- 2012 – Kyoto Commitment Period ends
- **2015 – COP21 in Paris to negotiate post 2020 framework and targets**

# The Kyoto Protocol



•192 Parties to the Kyoto Protocol

•Includes 63.7% of Annex I Parties' emissions



# Paris 2015 – the next stage??



# What's under negotiation?

Participation:	nation states, non-state actors
Emissions targets:	baselines, peak years, rates of reduction
MRV:	measurement, reporting, verification
Finance:	amounts, objectives, mechanisms, eligibility, governance
Market based instrs:	incorporation of businesses & non-state actors

# Negotiation Exercise

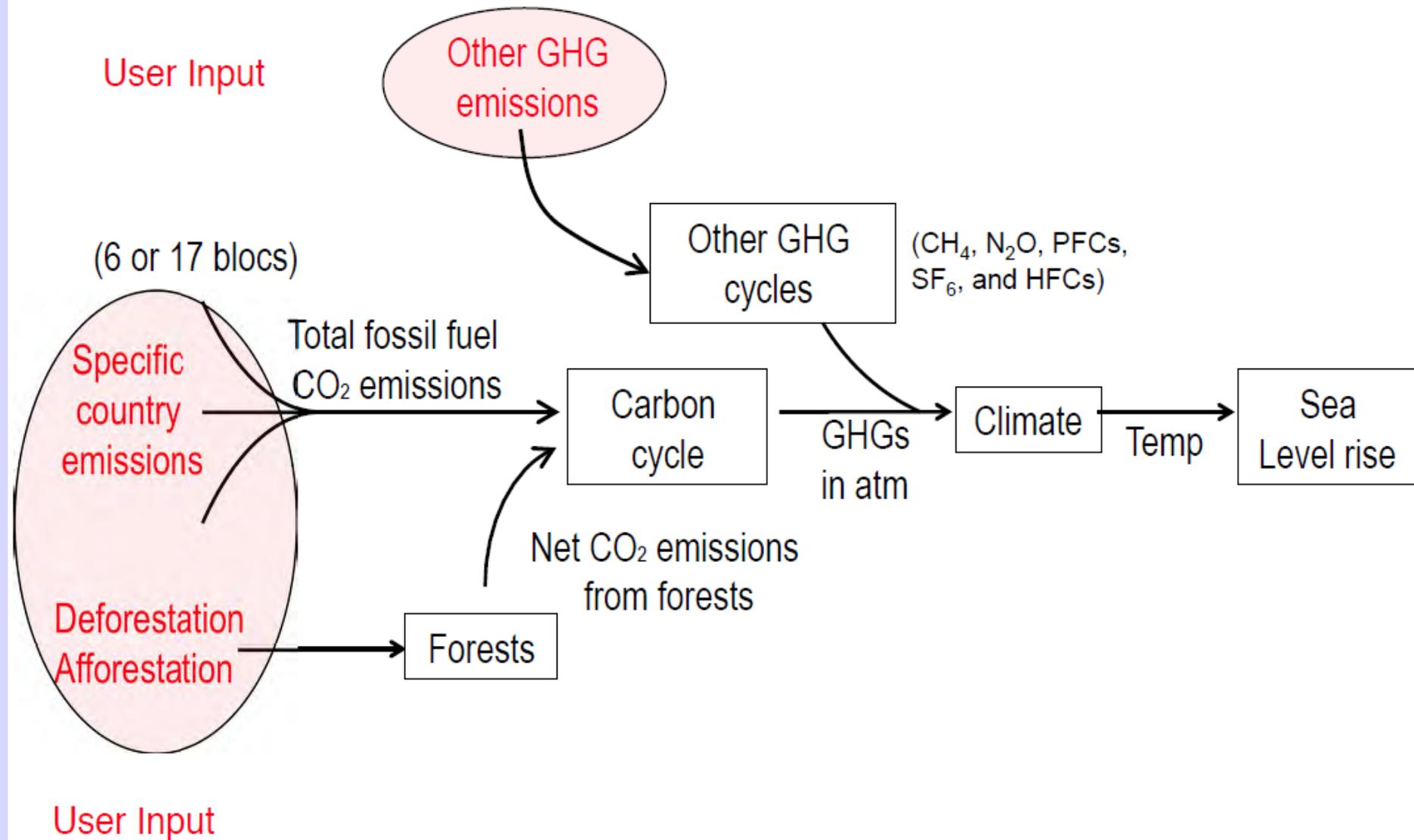
# Negotiation Exercise

Can this Policy Week group stabilise the global climate?

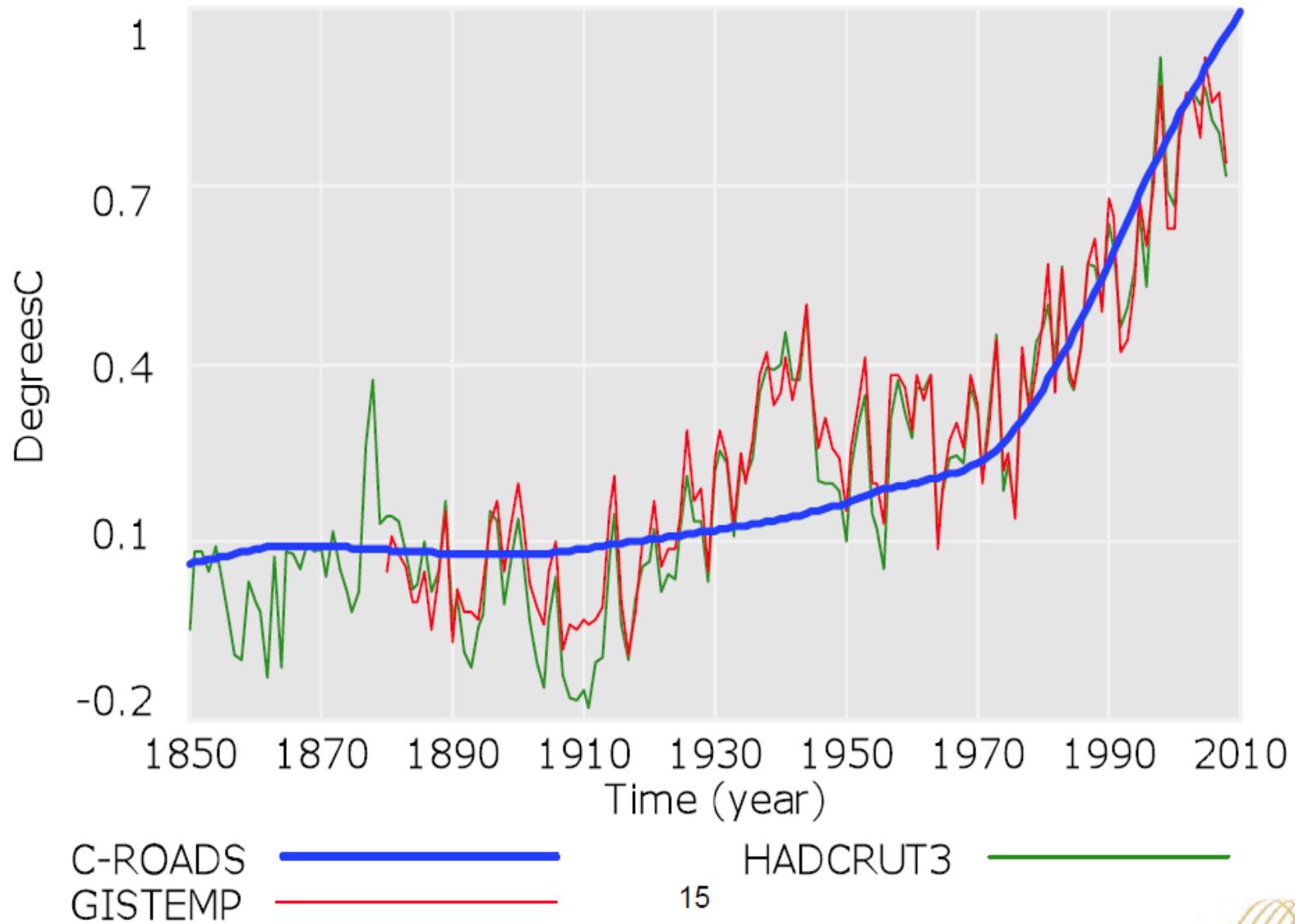
- What levels of reductions will you commit to?
- Where can alliances be forged?
- Which of you will drive the process?
- Who will hold it back?



# C-ROADS Model Structure



# C-ROADS Produces Temperature Results Consistent with Historical Records



# Procedure our UN Climate Summit



# Structure of Negotiations

## 6 blocs

- China
- India
- Other developing
- EU
- USA
- Other developed

## Key elements

- Ministers of Climate Change
- Executive Secretary
- IPCC
- 3 Rounds of negotiation

# Your Goals

Achieve emissions reduction commitments to limit global warming to no more than 2 °C above pre-industrial levels.

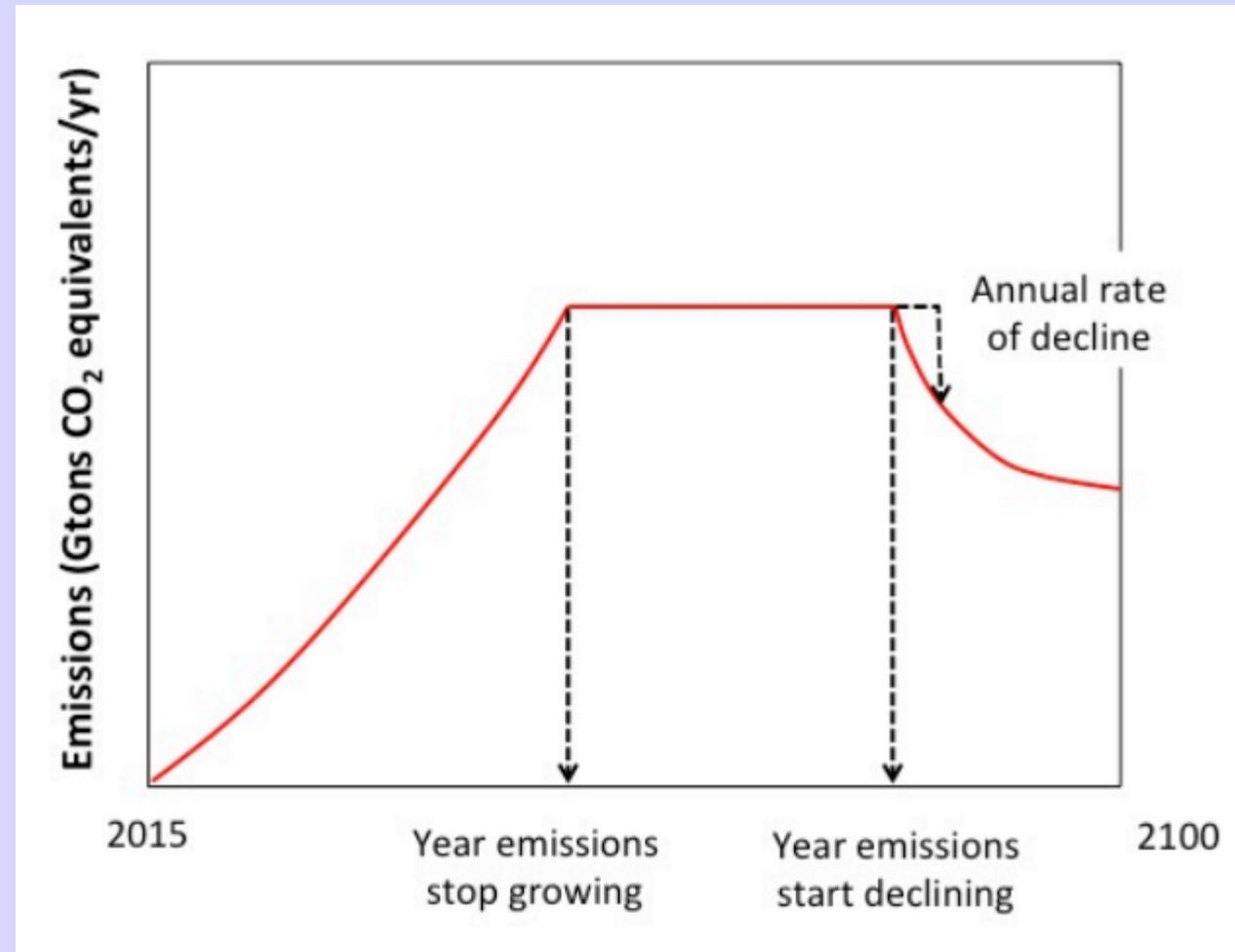
Agree on a deal to share costs of mitigation and adaptation fund to aid less developed nations.

# Task 1: Emissions Targets

Each delegation will set its own fossil fuel emissions targets.

You will set:

- In what year will GHG emissions in your bloc stop growing (if any)?
- In what year (if desired), will your GHG emissions begin to fall?
- If emissions will fall, at what rate (% per year)?



# Task 2: Burden Sharing

We are creating the “UN Global Fund for Mitigation and Adaptation” for

- Disaster relief
- Food and water
- Immigration and refugees
- Mitigation — Investing in any necessary non-cost-saving mitigation to achieve Task 1 goals

Total cost is \$100 Billion per year (ramping up to that level by 2020)

How much will you contribute?

How much should others contribute?

On what conditions?

# Proposal Form

Region: \_\_\_\_\_

CO<sub>2</sub> Emissions growth stop year: \_\_\_\_\_

CO<sub>2</sub> Emissions decline start year: \_\_\_\_\_

Fractional rate of decline (%/year): \_\_\_\_\_

Your region's contribution to fund for  
mitigation and adaptation (\$B/year): \_\_\_\_\_

After you prepare your proposal

***2 minute*** speech by a representative of each delegation describing and justifying:

- **Your emissions proposal**
- **Fund commitment**

*Designate a representative to give your bloc's speech. This needn't be your Minister.*

# Proposal Summary

	<b>Emissions Growth Stop Year</b>	<b>Emissions Reduction Start Year</b>	<b>Annual Emissions Reduction (%/year)</b>	<b>Contribution to (or Draw on) Fund (\$ Billion/yr)</b>
<b>United States</b>				
<b>European Union</b>				
<b>Other Developed</b>				
<b>China</b>				
<b>India</b>				
<b>Other Developing</b>				
<i>Example</i>	<i>2075</i>	<i>2085</i>	<i>1.0%/year</i>	<i>\$10 B/yr</i>

Time to talk

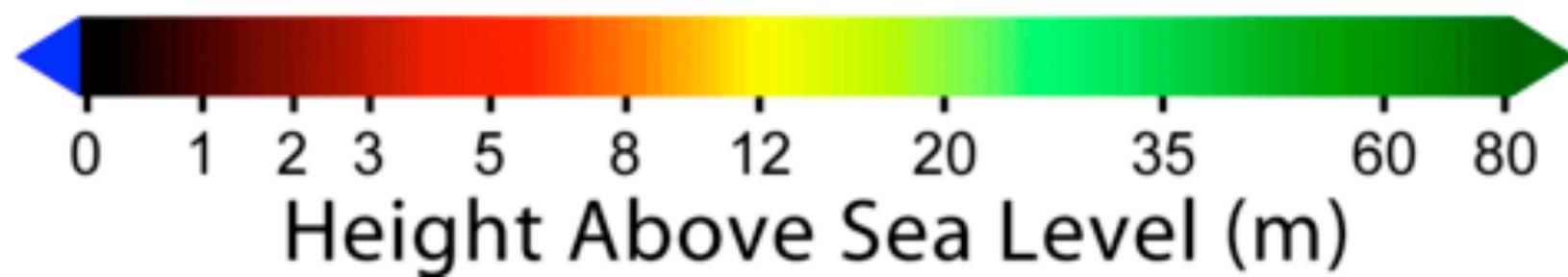
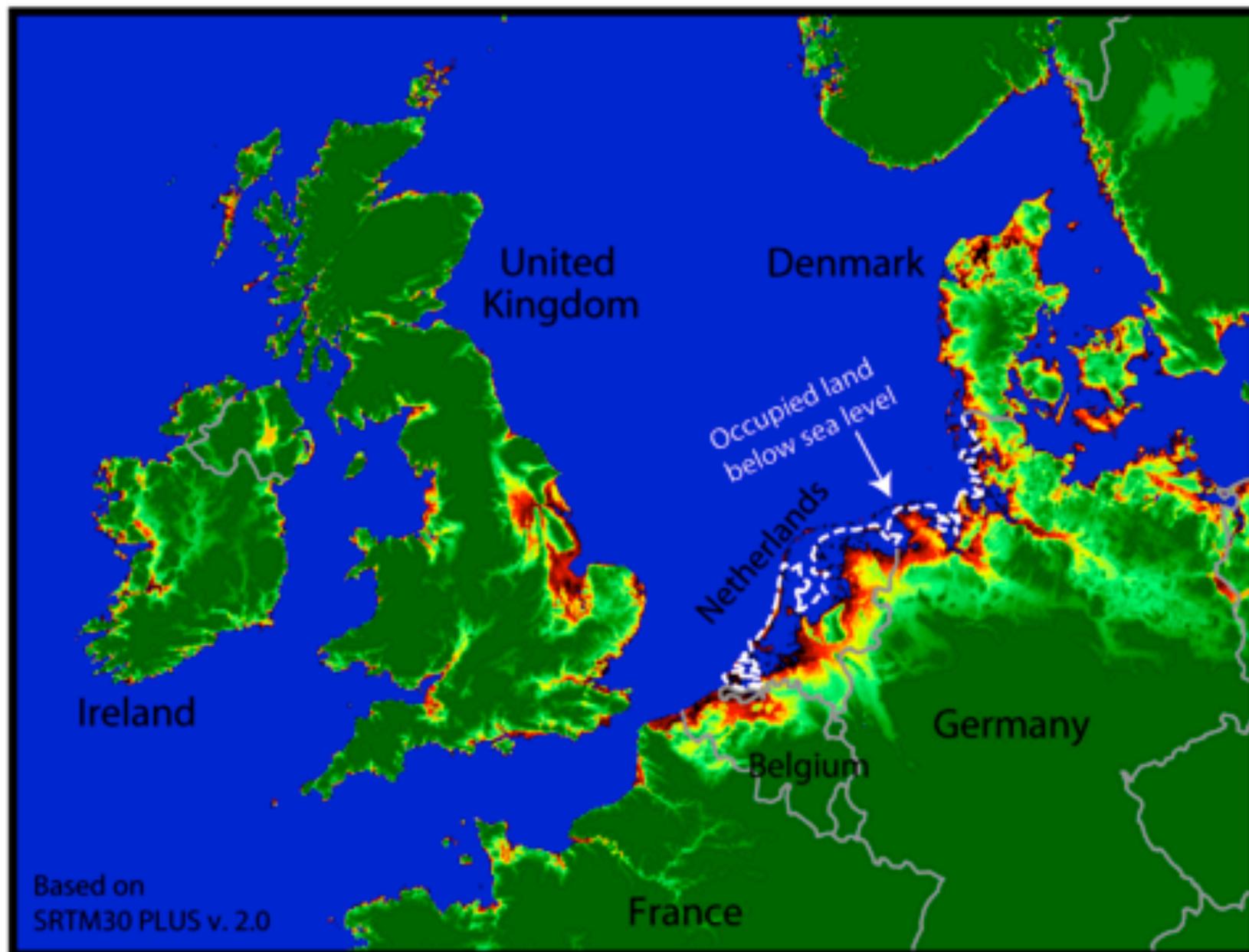


# Debrief Round 1

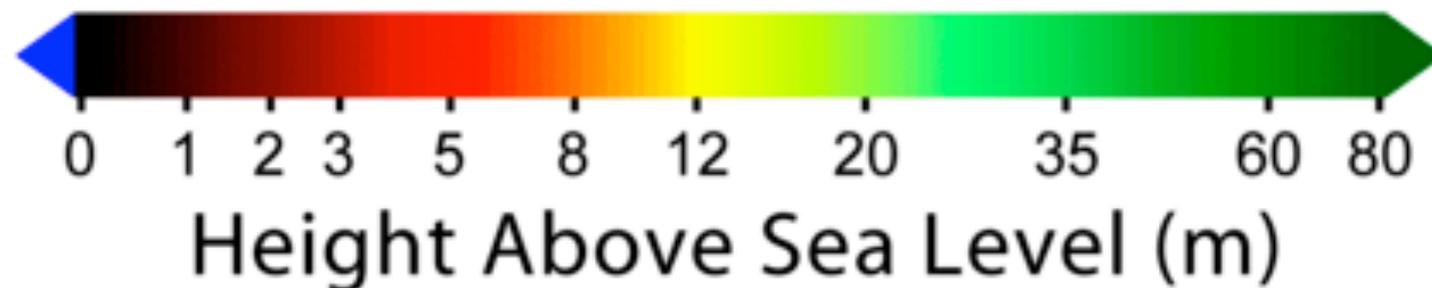
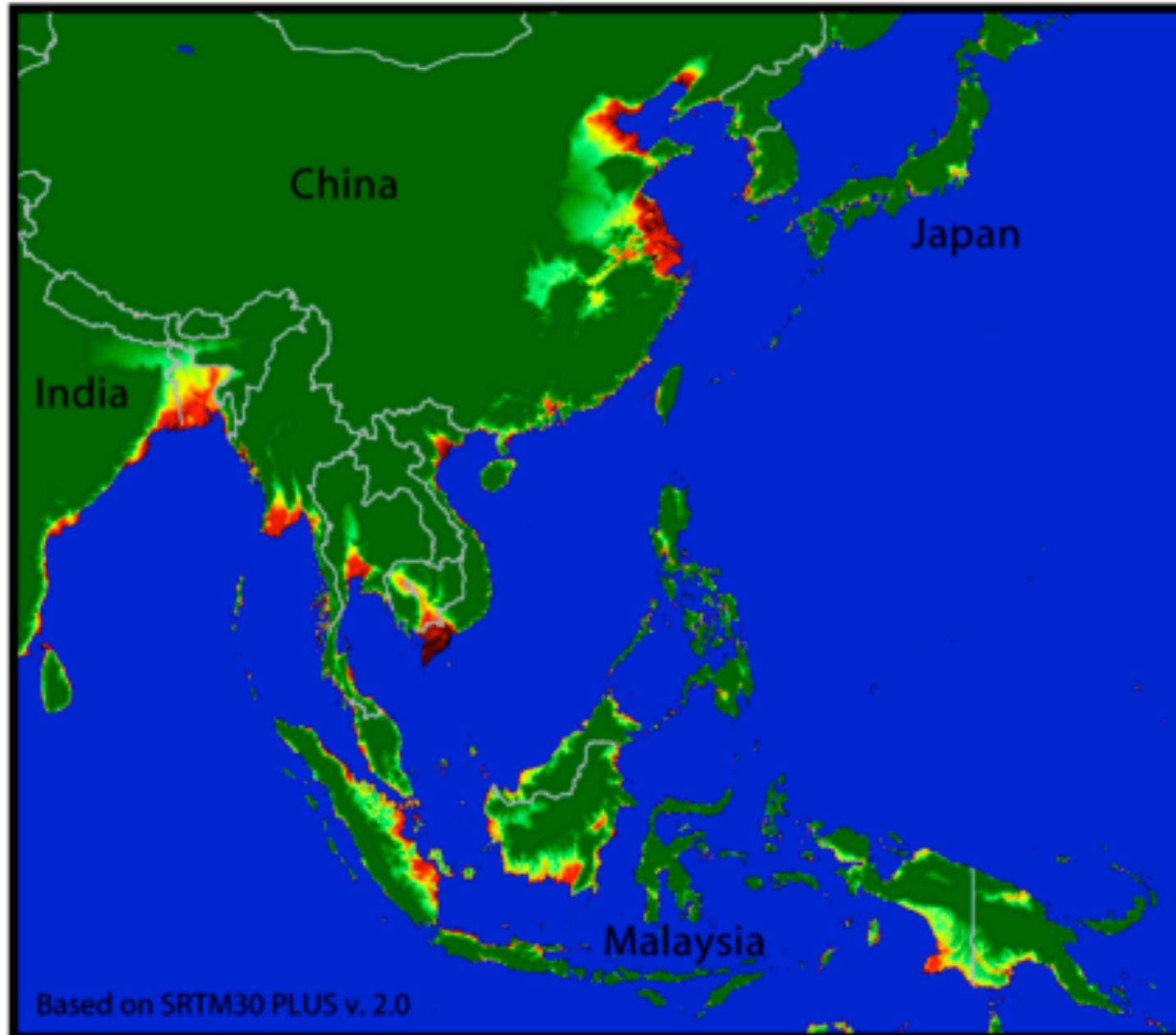
# Success, Executive Secretary?



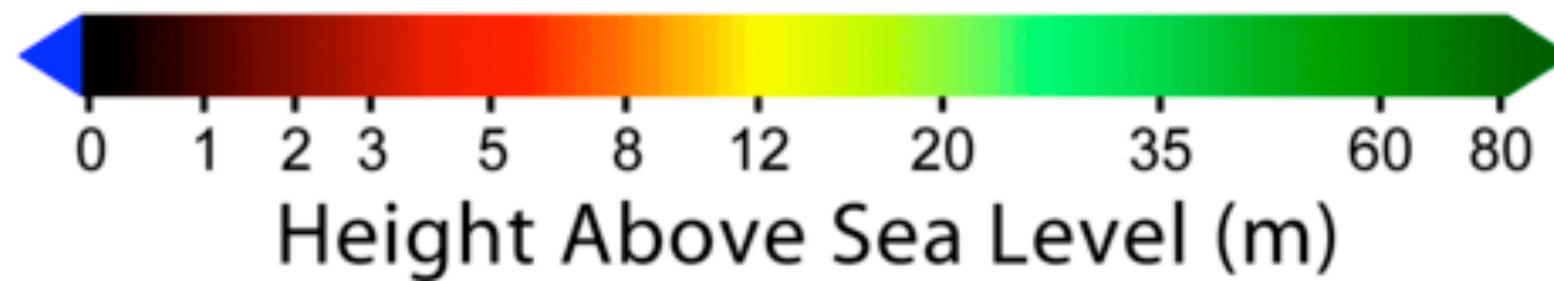
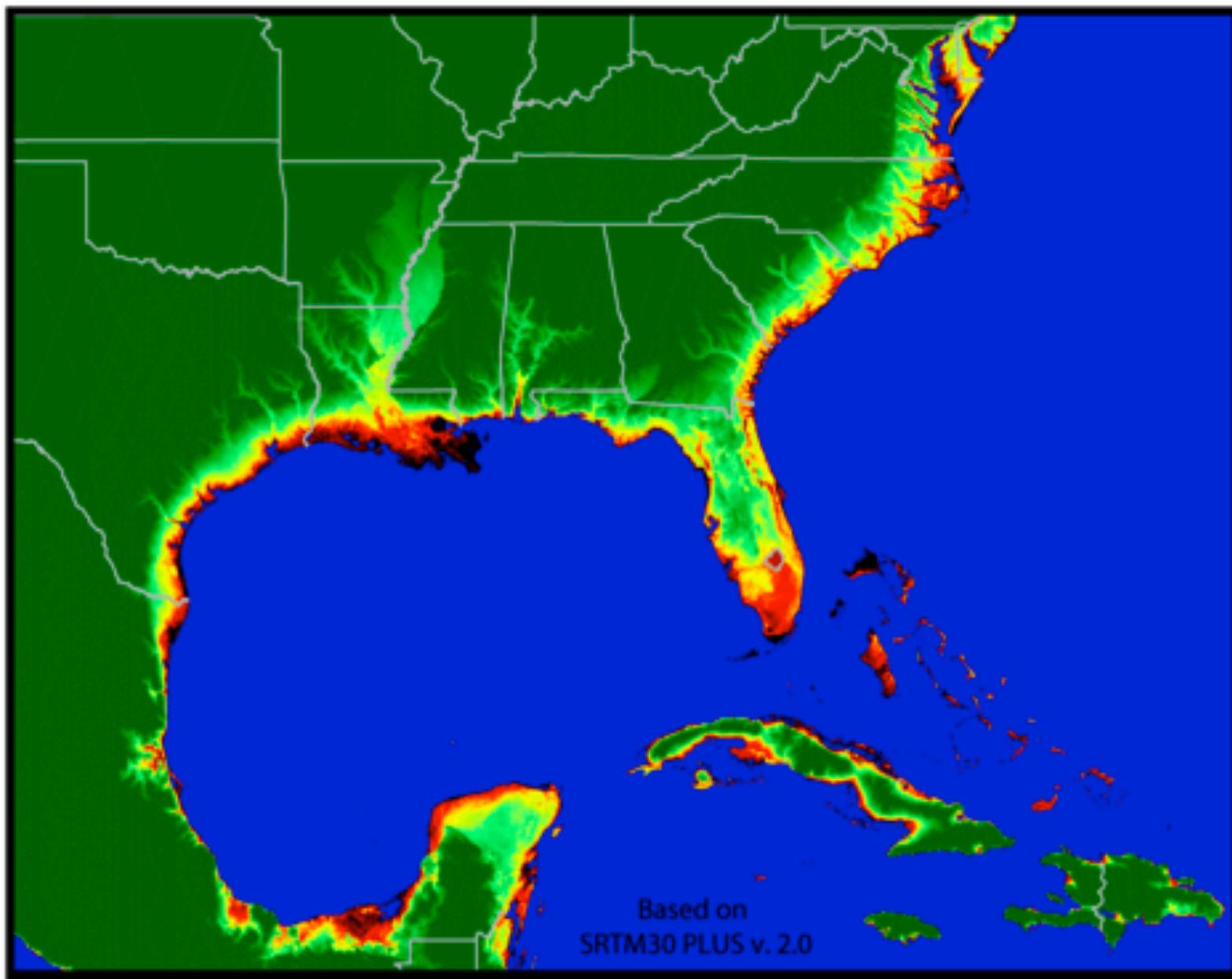
# Sea Level Risks - North Sea

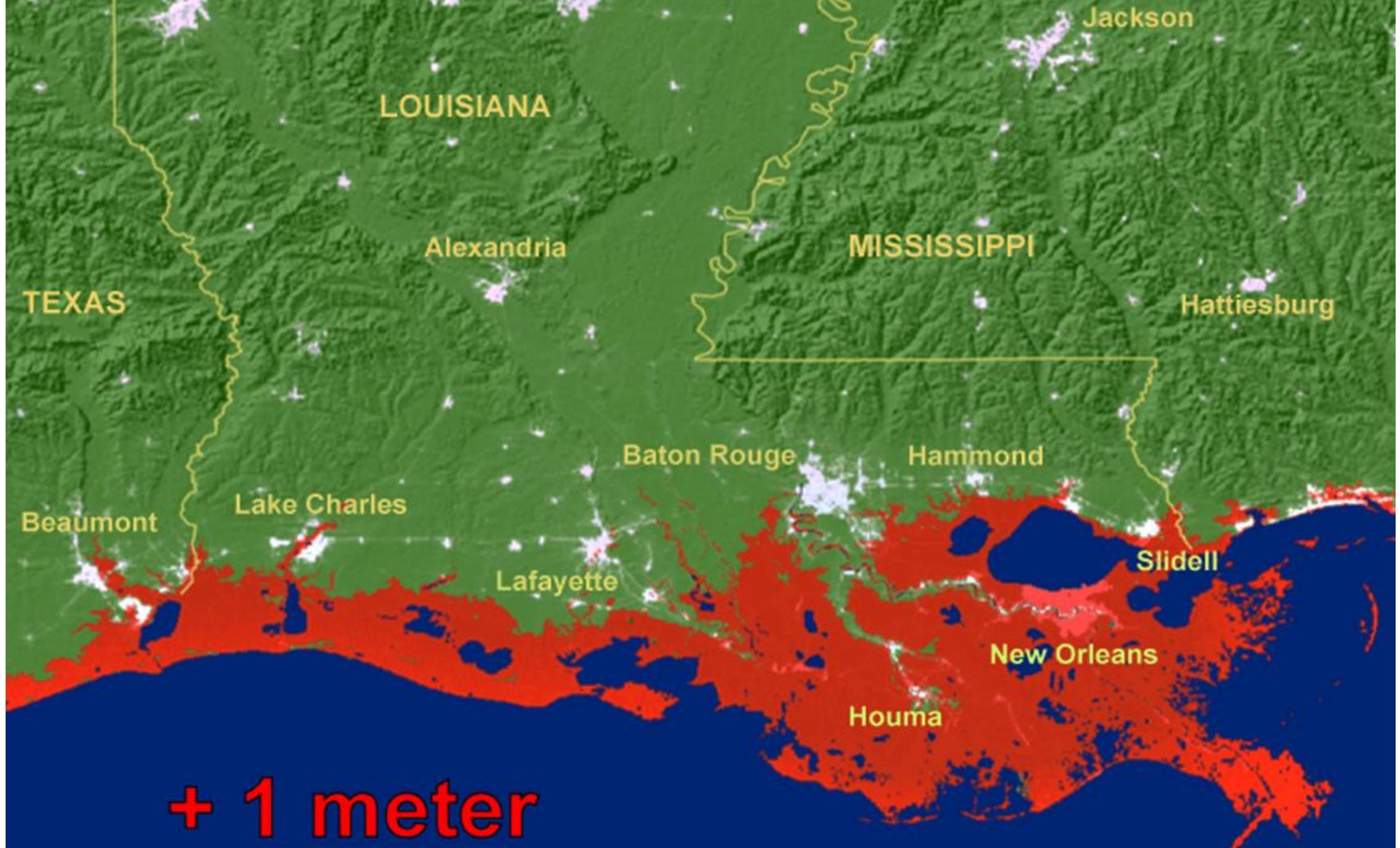


# Sea Level Risks - Southeast Asia



# Sea Level Risks - US East Coast





**+ 1 meter**

# USA: Louisiana

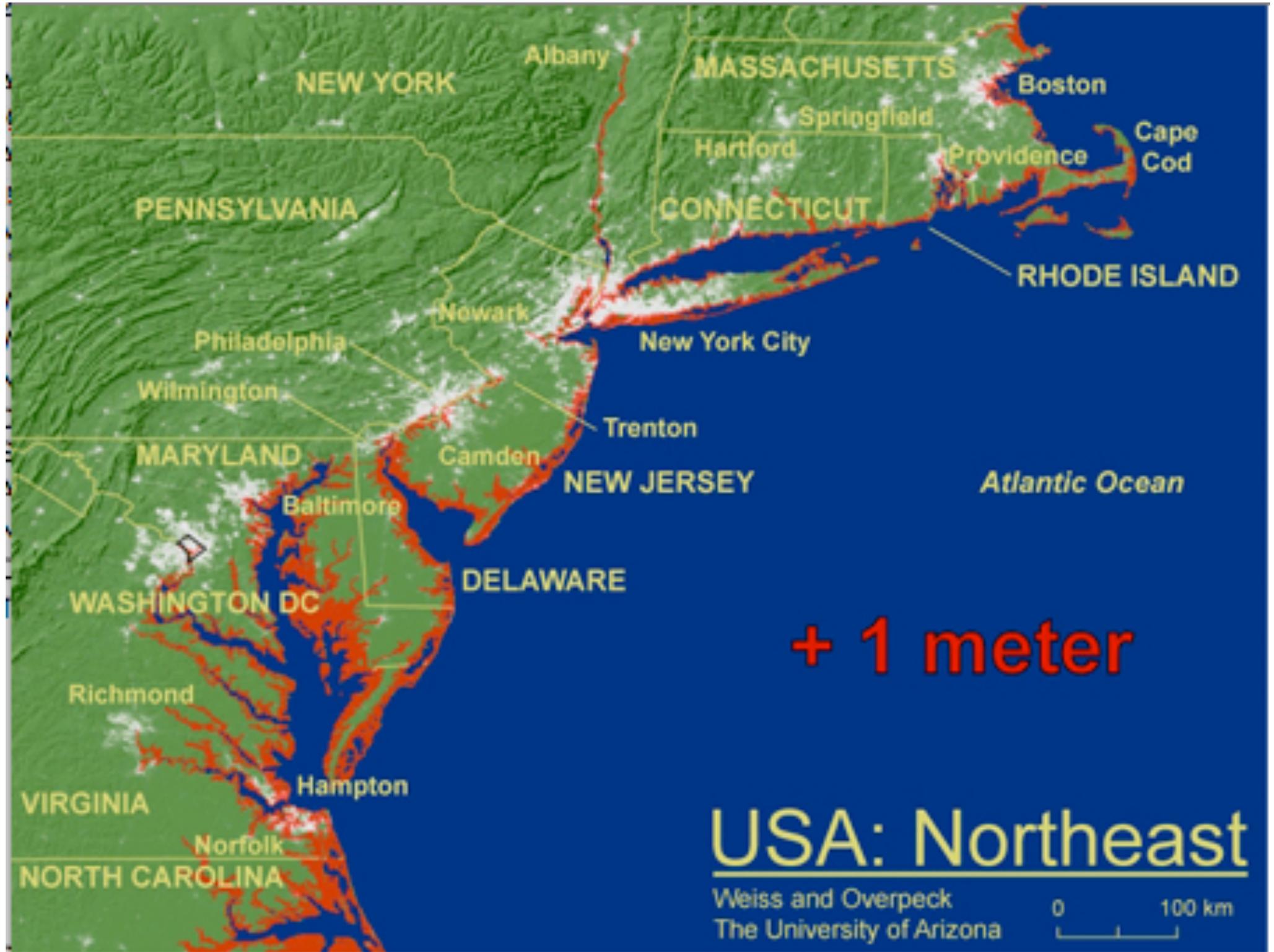
*Gulf of Mexico*

Weiss and Overpeck

0

100 km

# Impact of 1 Meter SLR



# Round 2

# How are the delegations?



# Round 2 Debrief

# Head of State Meeting, Copenhagen, Dec 2009



## Head of State Meeting, Copenhagen, Dec 2009



**“Let us suppose 100 percent reduction, that is, no CO<sub>2</sub> in the developed countries anymore. Even then, with the [target of] two degrees, you have to reduce carbon emissions in the developing countries. That is the truth.”**

**— Chancellor Angela Merkel.**

**“People tend to forget where it is from. In the past 200 years of industrialization developed countries contributed more than 80 percent of emissions. Whoever created this problem is responsible for the catastrophe we are facing.”**

**— Chinese deputy foreign minister He Yafei**

**“If there is no sense of mutuality in this process, it is going to be difficult for us to ever move forward in a significant way.”**

**—President Barack Obama**

**“I say this with all due respect and in all friendship....With all due respect to China... [The developed countries have pledged to reduce greenhouse gas emissions by 80 percent.] And in return, China, which will soon be the biggest economic power in the world, says to the world:**

**‘Commitments apply to you, but not to us.’**

**This is utterly unacceptable!**

**This is about the essentials, and one has to react to this hypocrisy!”**

**—President Nicolas Sarkozy**

**“Thank you for all these suggestions. We have said very clearly that we must not accept the 50 percent reductions. We cannot accept it.”**

**— He Yafei**

# Round 3

# Discussion

# Discussion

- Participant reactions
  - Comments, how did it feel to be in the process?
  - What did you assume about the other parties?
  - What shifts were there in negotiating positions?
- Implementation
  - What are the priorities?
  - Major barriers?
- How can we catalyze change on other levels?
  - Personal aspirations?

Thank you

For more information:

[climateinteractive.org](http://climateinteractive.org)

