



# Climate Policy 102: Climate Governance

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# Ground Rules!

# Quick recap from previous sessions...

- Basics of Climate Science
- Mechanisms of Climate Change
- Climate Policy 101: Evaluating Climate Policy Options



# Objective and Guiding Questions

To gain an understanding of international climate governance, domestic climate governance in the United States, and subnational climate governance in our area.

*How are climate policy instruments chosen and enacted at the international, national, and subnational level?*

*What challenges or tensions exist that make it difficult to put these instruments in place and respond to climate change?*

# Overview



**International Climate Governance**



**National Climate Governance**



**Subnational Climate Governance**



# **International Climate Governance**

# Why do we want an *international* agreement?

- Scientific reasons
  - CO<sub>2</sub> is a stock pollutant — doesn't matter where it's emitted
- Tragedy of the commons
  - “commons” problem requires coordinated, collective action
  - action is in no one's best interest individually, but everyone's collectively

# Both the treaty process and the final agreement matter...

The goal here is environmental improvement by means of an international agreement on climate action.

But what are the causal mechanisms by which we get there?

## The three 'C's

- increase government **concern** for an issue
- enhance the **contractual environment**
- build national **capacity**





# **International Climate Governance**

## History of the UNFCCC

In 1988, the World Meteorological Organization (WMO) and the United Nations Environment Programme (UNEP) established the Intergovernmental Panel on Climate Change (IPCC).



In 1992, the UNFCCC was adopted at the Rio Earth Summit.





The United Nations Framework Convention on Climate Change (UNFCCC) is a treaty under which its **196 member countries** negotiate agreements on international climate governance.



# The **196 member countries** can be divided into many categories— let's go over a few.

Developed countries = industrialized countries (e.g. United States, European Union)

Rapidly developing countries = countries with economies that are growing quickly (e.g. China, India)

Developing countries = countries with economies that are still developing that are especially vulnerable to all effects of climate change (e.g. Uganda, Bangladesh)

Small island developing countries = countries especially vulnerable to climate change due to extreme weather and sea level rise (e.g. Marshall Islands, St. Lucia)



# What is the goal of the UNFCCC?

*“The ultimate objective of this Convention and **any related legal instruments** that the **Conference of the Parties** may adopt is to achieve... stabilization of greenhouse gas concentrations in the atmosphere at a **level that would prevent dangerous anthropogenic interference** with the climate system.”*

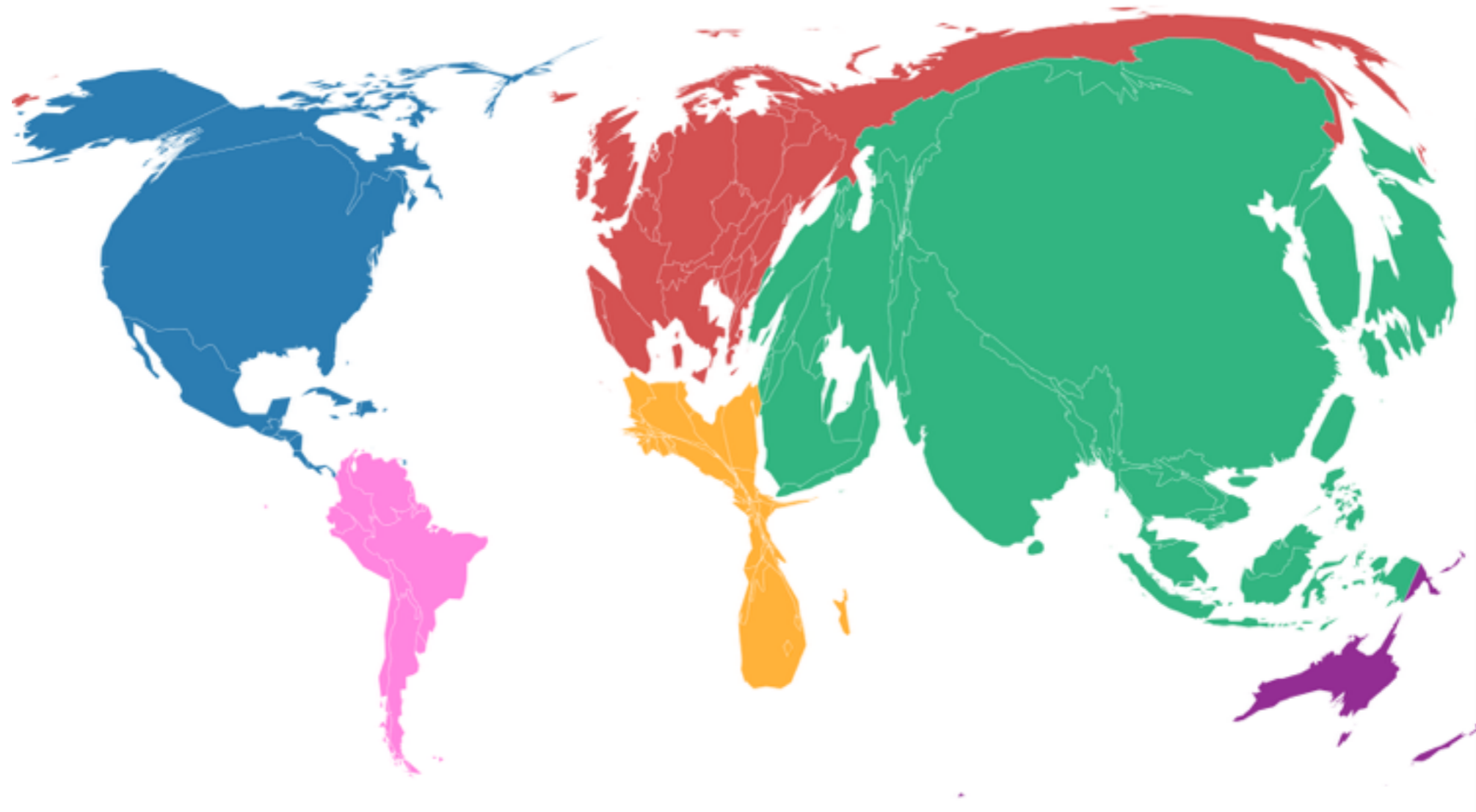
2°C

1.5°C

## What principles guide the UNFCCC?

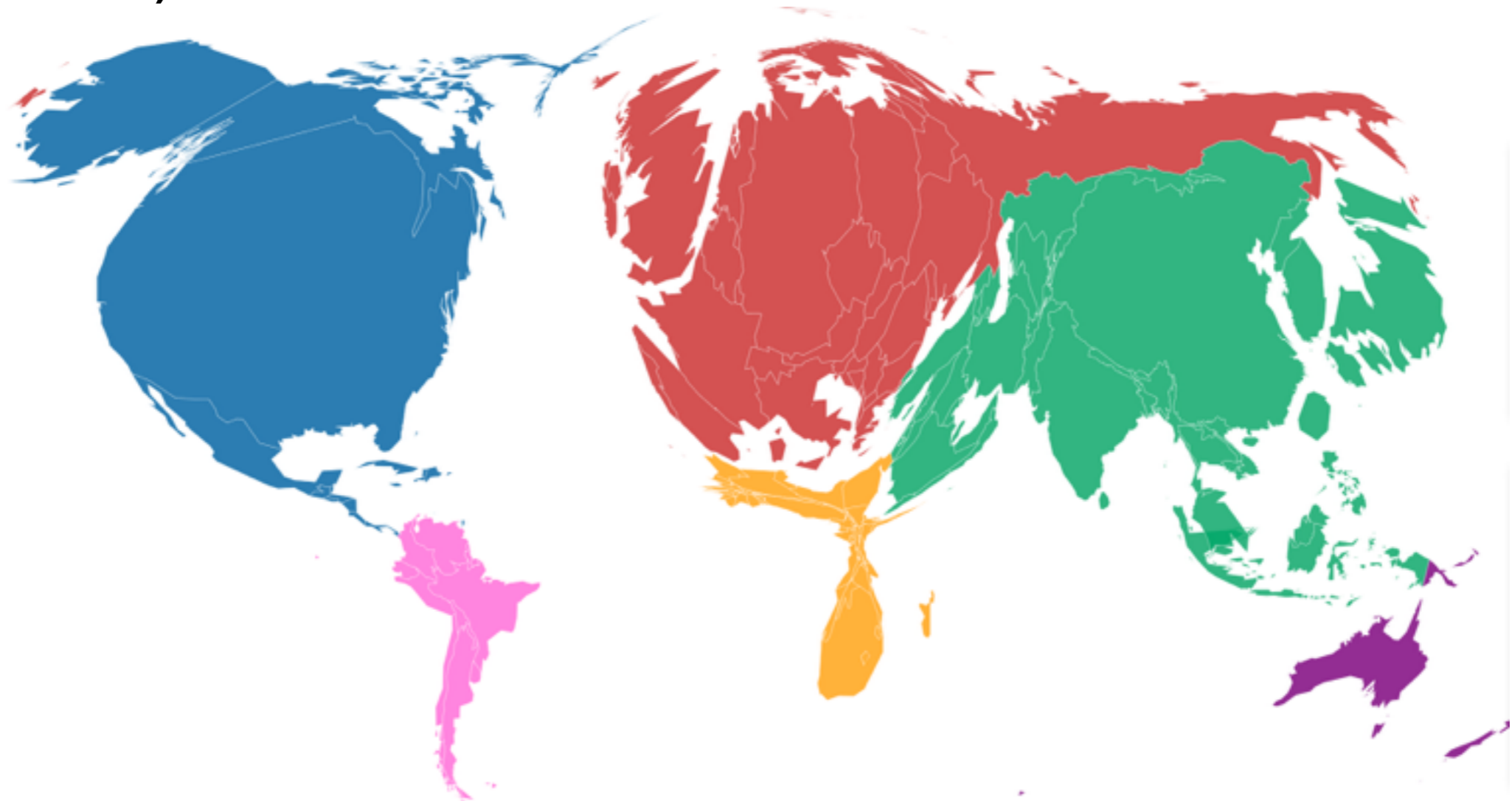
*“The Parties should protect the climate system for the benefit of present and future generations of humankind, on the basis of equity and in accordance with their **common but differentiated responsibilities** and respective capabilities. Accordingly, the developed country Parties should take the lead in combating climate change and the adverse effects thereof.”*

# Common But Differentiated Responsibilities (CBDR)



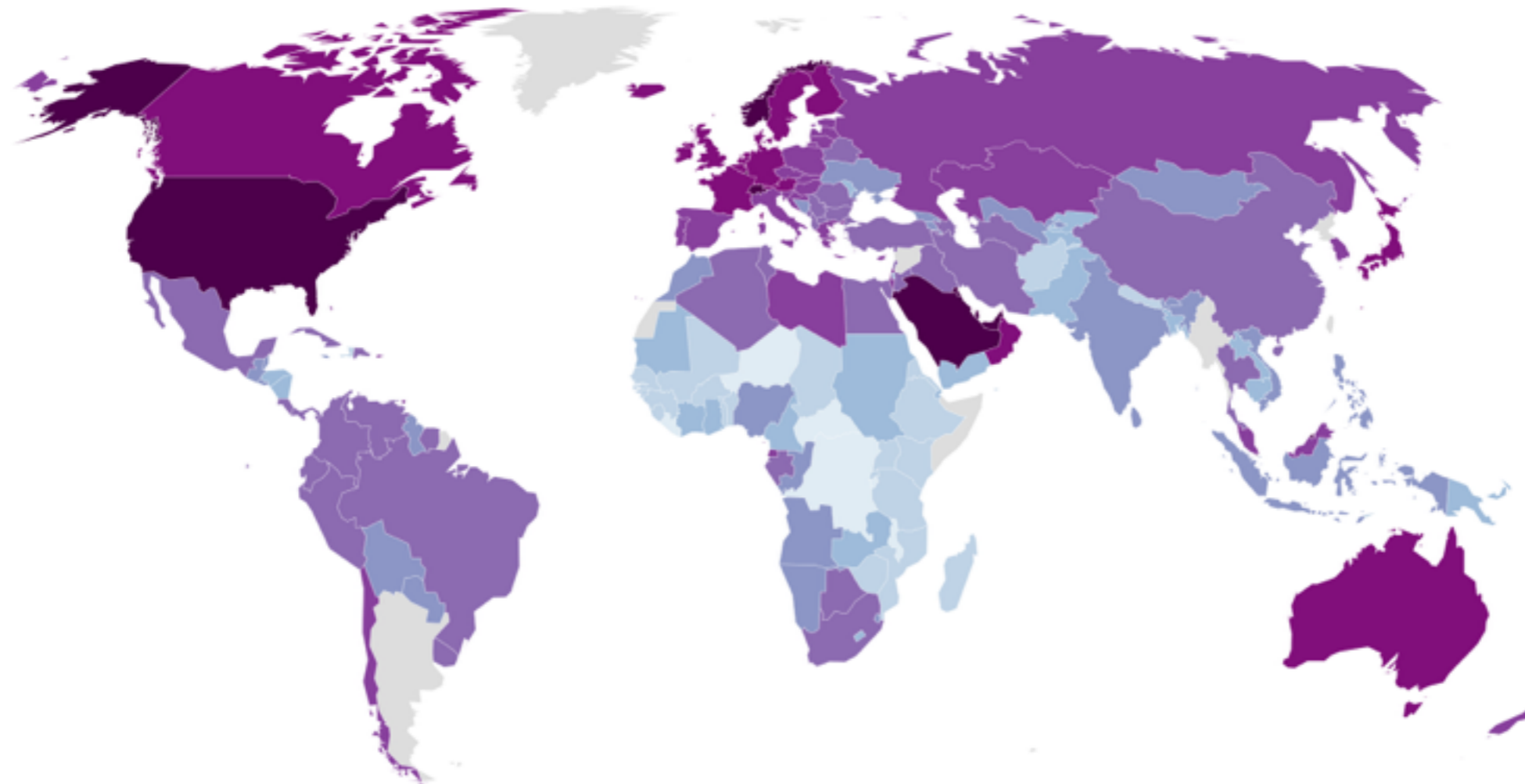
Annual CO<sub>2</sub> Emissions, 2013

# Common But Differentiated Responsibilities (CBDR)



Historical, Cumulative CO<sub>2</sub> Emissions, 1850-2011

# Common But Differentiated Responsibilities (CBDR)



Shade by

GDP per person

Gross domestic product per person based on PPP, 2013

- < \$500
- \$500–1000
- \$1000–2500
- \$2500–5000
- \$5000–10000
- \$10000–20000
- \$20000–35000
- \$35000–50000
- > \$50000

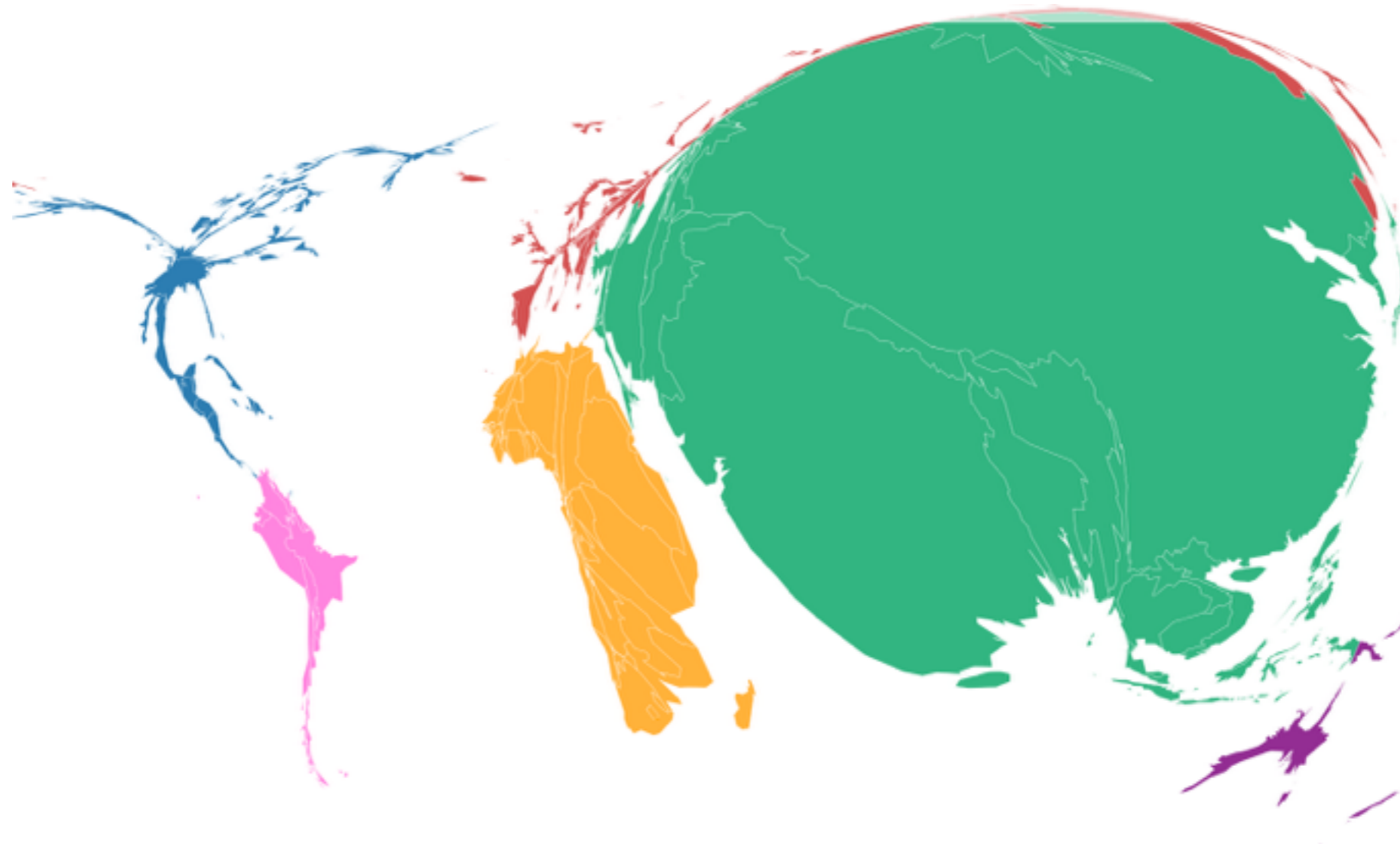
**i** This map

This is the world as seen in one of the most common maps: the Robinson projection.

GDP Per Person in 2013



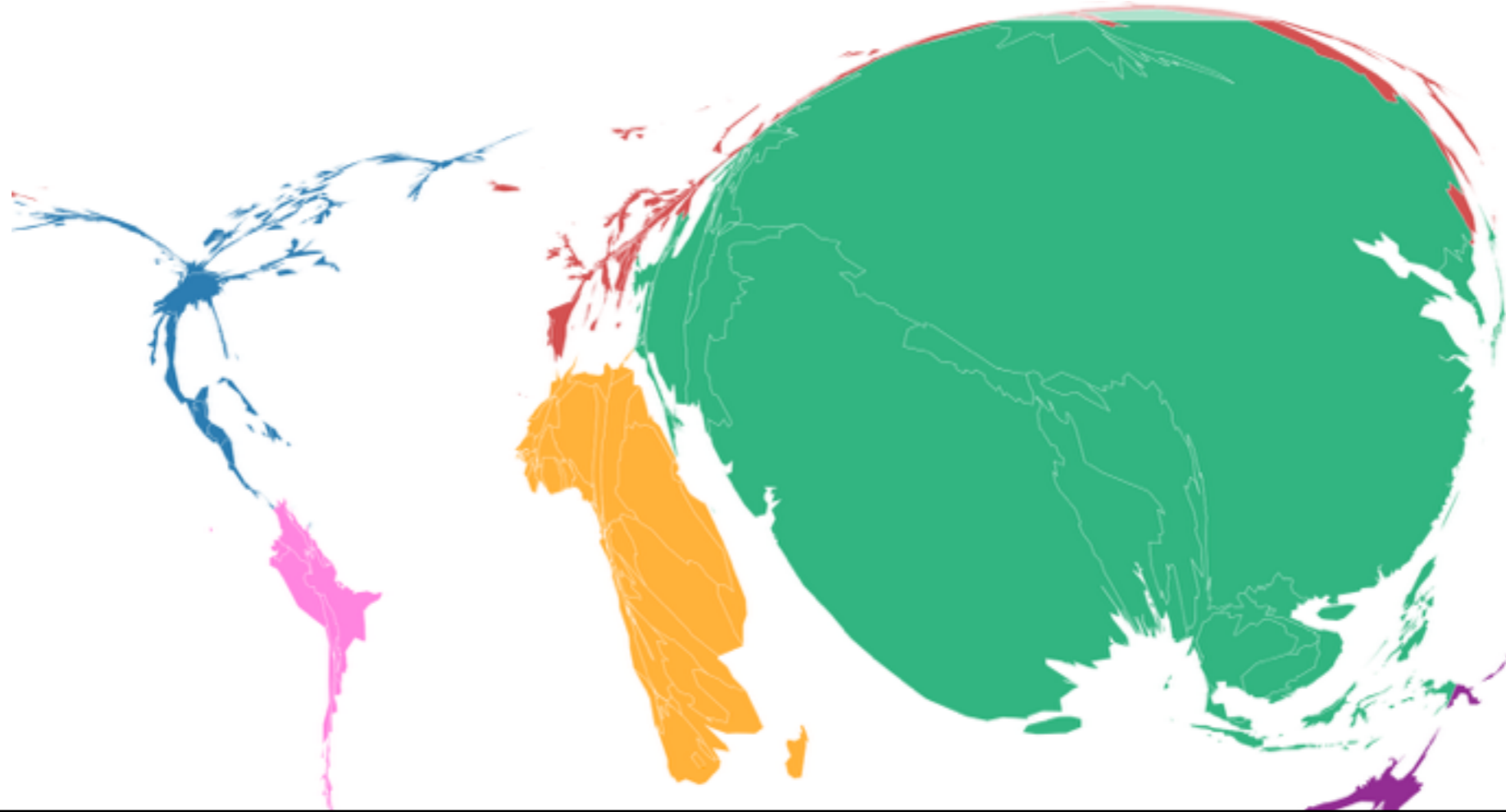
# Common But Differentiated Responsibilities (CBDR)



Vulnerability to Climate Change

Number of People Injured, Left Homeless, Displaced, or Requiring Emergency Assistance Due to Floods, Droughts, or Extreme Temperatures in a Typical Year

# Common But Differentiated Responsibilities (CBDR)



**Discussion:** What are some ways you can imagine the concept of CBDR being put into practice?

Number of People Injured, Left Homeless, Displaced, or Requiring Emergency Assistance Due to Floods, Droughts, or Extreme Temperatures in a Typical Year

# Common But Differentiated Responsibilities (CBDR)

Who should mitigate their emissions?

Who should pay for implementation?

In 1997, the Kyoto Protocol was signed, putting in place **targets and timetables** for emissions reduction in Annex I (developed) countries.



In 2009, UNFCCC member countries met in Copenhagen and established a **pledge and review process** for communicating climate action.







# **International Climate Governance**

COP21, the Paris Climate Conference

The material from this section comes from the Earth Negotiations Bulletin (ENB)....



The Paris Agreement utilizes three main policy instruments to address climate change.

Mitigation

Adaptation

Financing

# 5-Year Review Cycles of National Determined Contributions (NDCs)



# 5-Year Global Stocktake Cycles





# Transparency Framework (the legally binding part)



# Inclusiveness and Implementation



The Paris Agreement combines top-down and bottom-up approaches for action on climate change.



**Top-Down**

Transparency Framework



**Bottom-Up**

Nationally Determined Contributions



# **International Climate Governance**

## Challenges and the Road Ahead

# Challenges: “The Work Starts Tomorrow”

- While the member parties to the Paris agreement are legally bound to submit NDCs and report their progress, the actual targets communicated in the NDCs are not legally binding.
- Perhaps the Paris Agreement trades off ambition for political feasibility and inclusiveness... the intended NDCs only add up to about 3.5°C
- 55 countries representing 55% of global emissions are required to ratify the Paris Agreement (to give you an idea of the scale of this global emissions number, the US comprised 16% of global emissions from 1990-2011, China comprised 15%, the EU comprised 12%, see <http://www.wri.org/blog/2014/11/6-graphs-explain-world's-top-10-emitters> for more info.)



## Challenges: “The Work Starts Tomorrow”

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**Discussion:** Is the Paris Agreement a success? Do you think it falls short? Why?



# **National Climate Governance**

# Country-level: United States

- GHG target: reduce 26-28% below 2005 levels by 2025
  - but how is the US going to get there?
- No comprehensive federal climate legislation (*though there have been attempts*)
- **Climate Action Plan (June 2013)** focus on sectors:
  - fuel economy standards for vehicles
  - biofuels mandate
  - building codes and other energy efficiency programs
  - tax credits, loan guarantees, and R&D subsidies for renewable energy, nuclear
  - Clean Power Plan, under the Clean Air Act rules targeting power plants (air quality pollutants, **CO<sub>2</sub> - proposed**)



# Subnational Climate Governance

The Earth Negotiations Bulletin says the UNFCCC's key to success with climate action ambition that starts now "lies in the Convention's ability to engage transnational and subnational actors".

"Subnational governments all over the world should flex their muscles...."





**Discussion:** How are you involved?

# Regional Greenhouse Gas Initiative (RGGI)

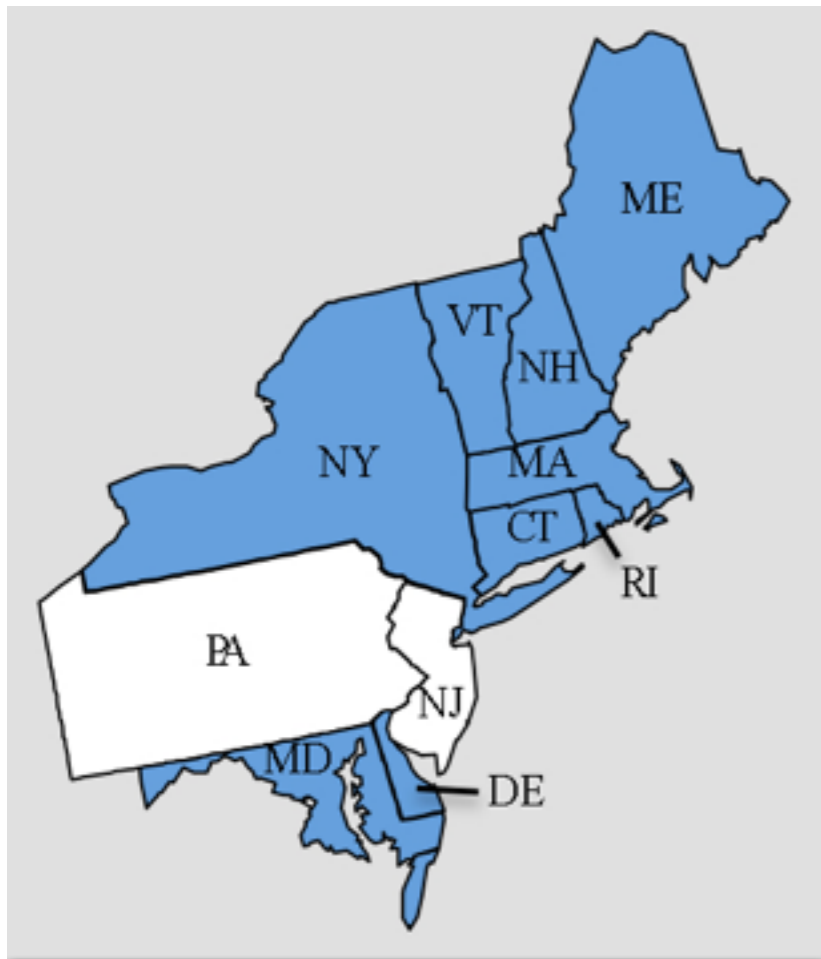
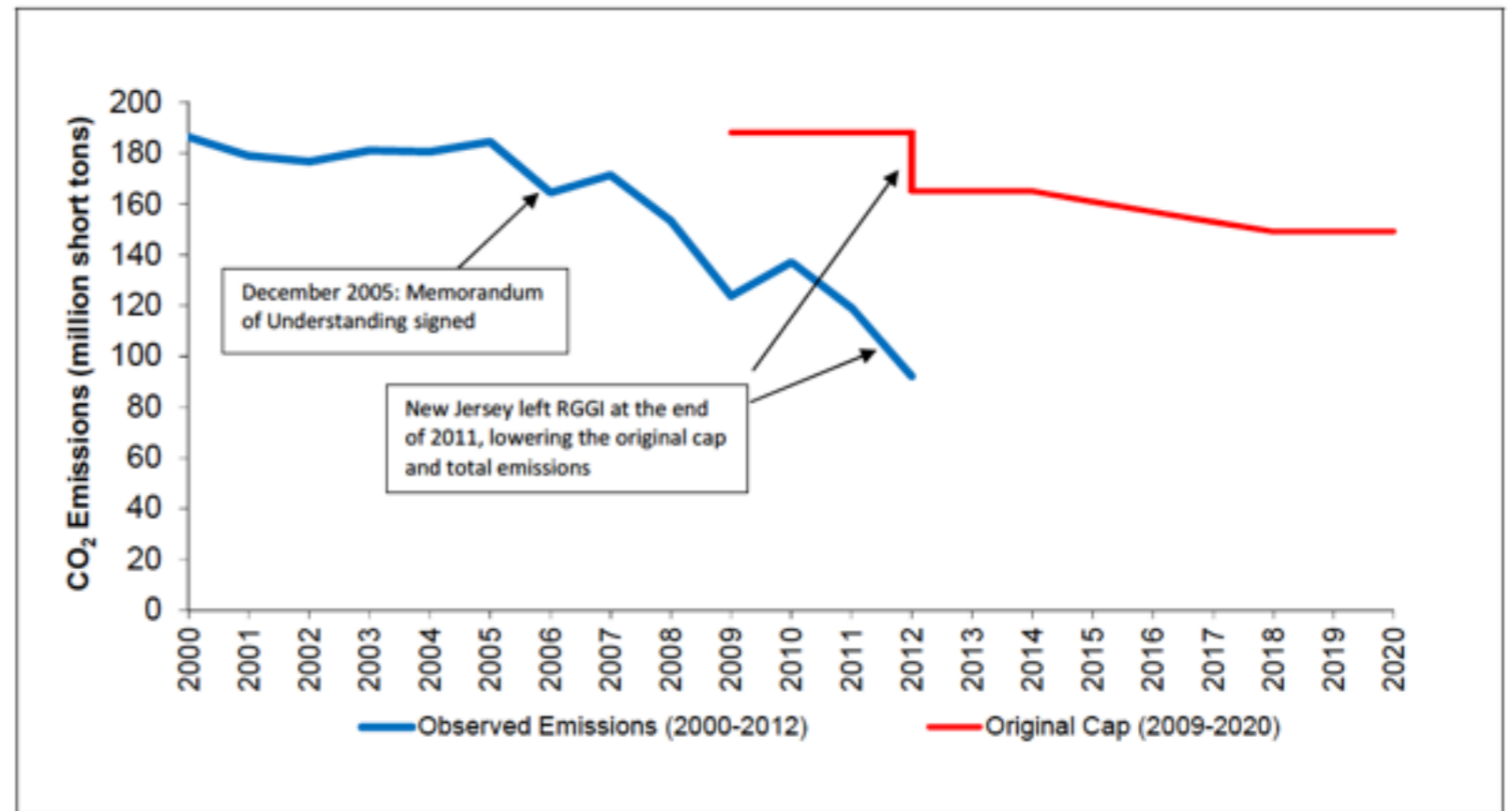


Figure 1. Observed Emissions Compared to the Original Emission Cap



Source: Prepared by CRS; observed state emission data (2000-2013) provided by RGGI at <http://www.rggi.org>.

# Compact of Mayors



# Cambridge Compact

## Cambridge Compact for a Sustainable Future

COLLABORATING FOR PROGRESS AND INNOVATION



# Greenovate Boston

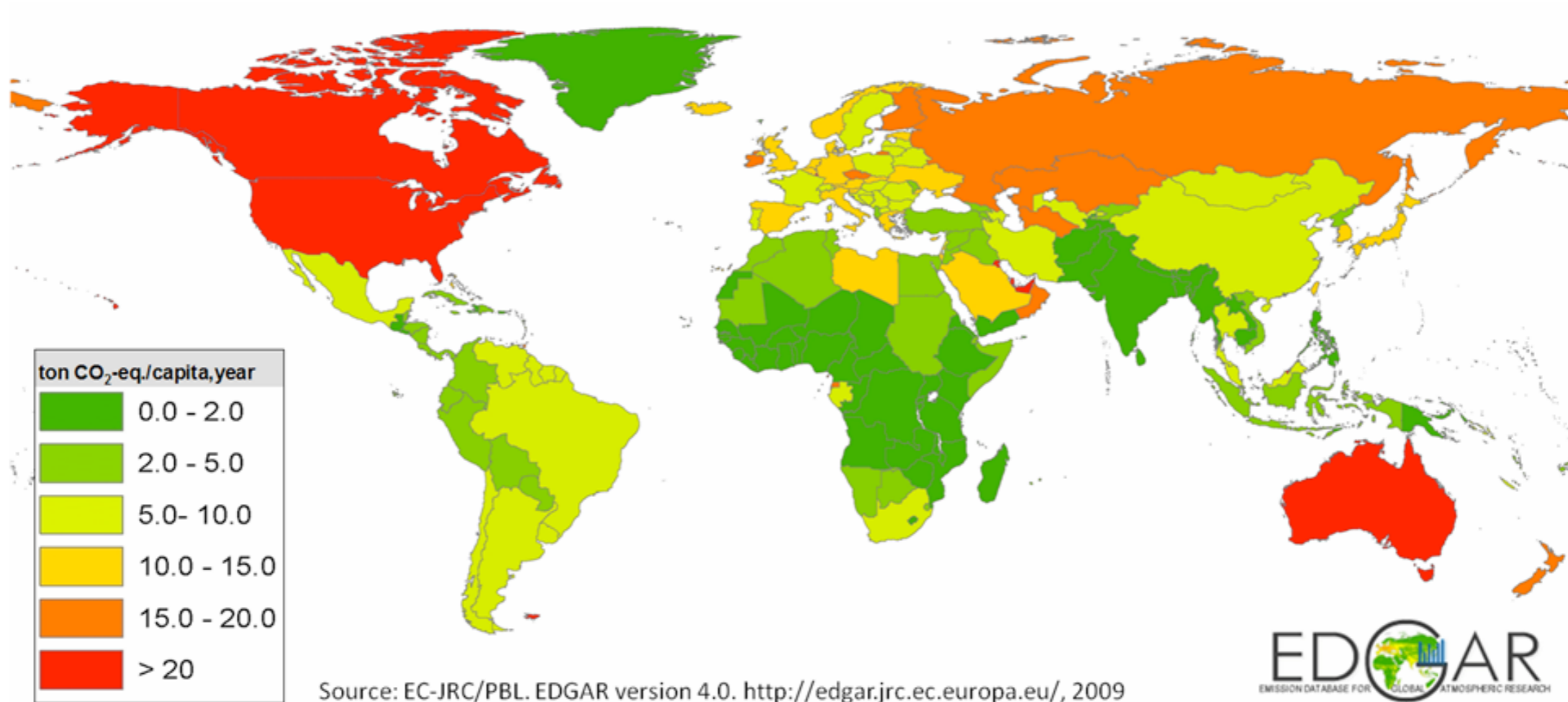




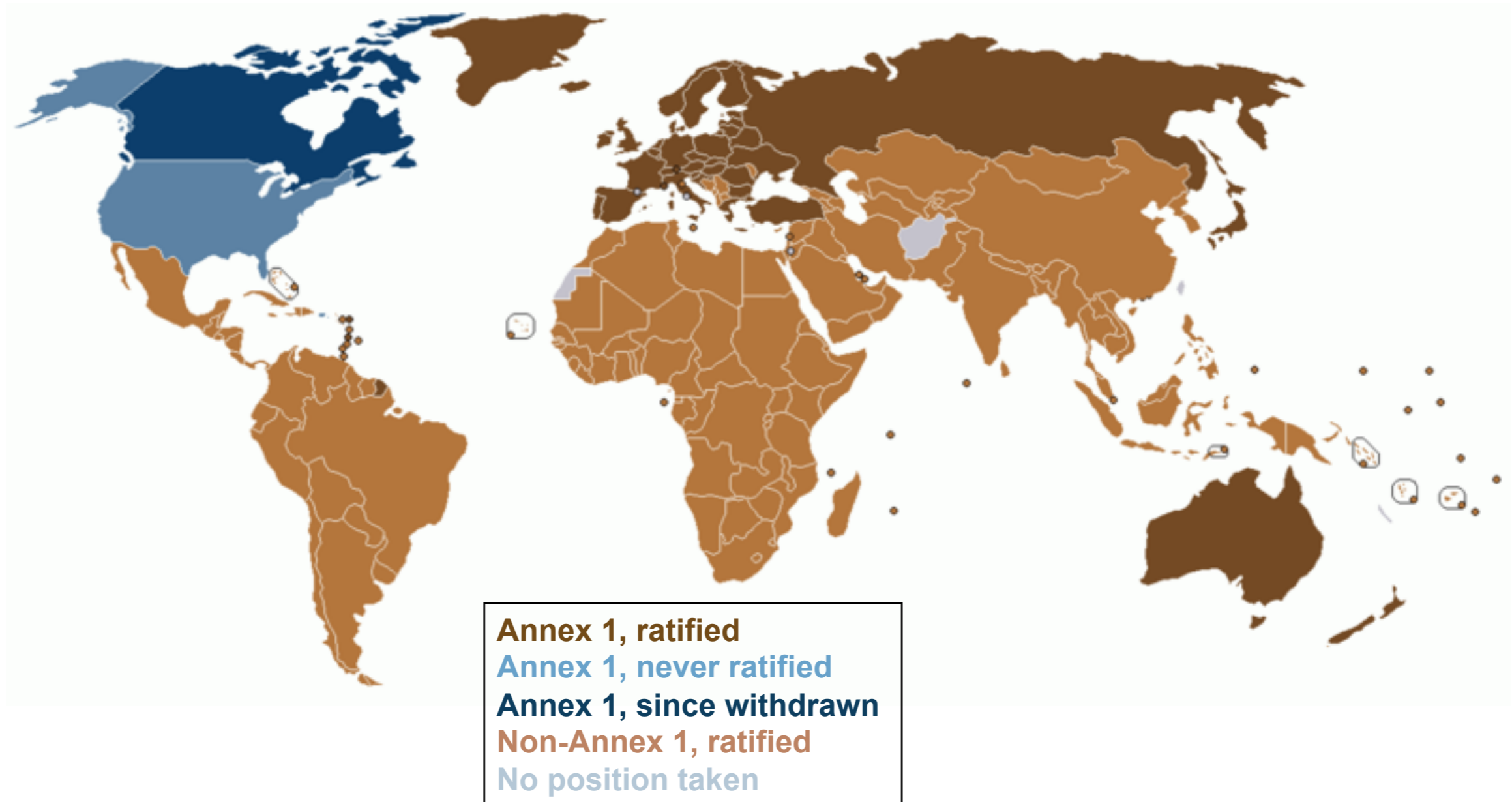
Questions?

# Extra Slides

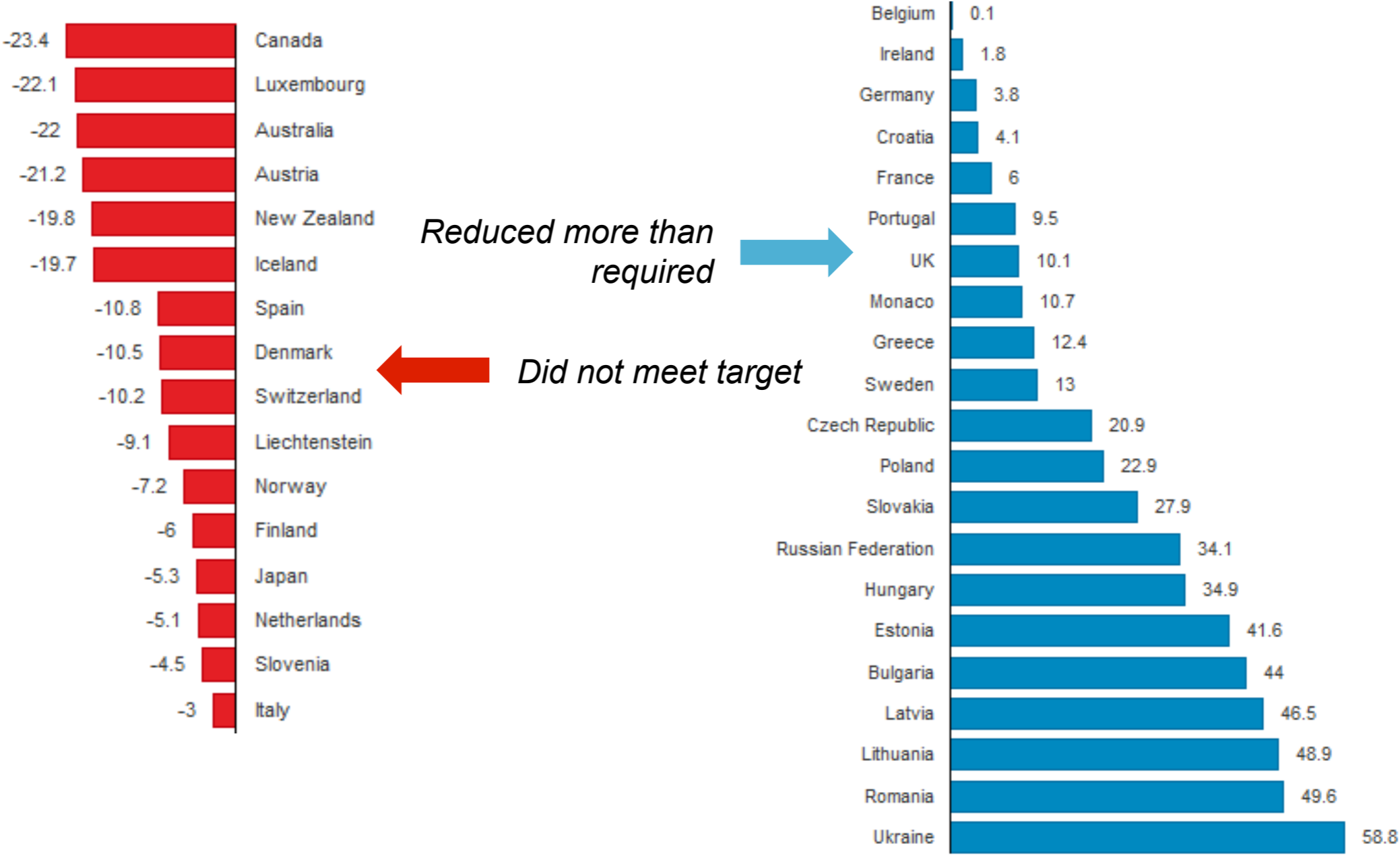
# Kyoto Protocol



# Kyoto Protocol



# Results of Kyoto Protocol (2012)



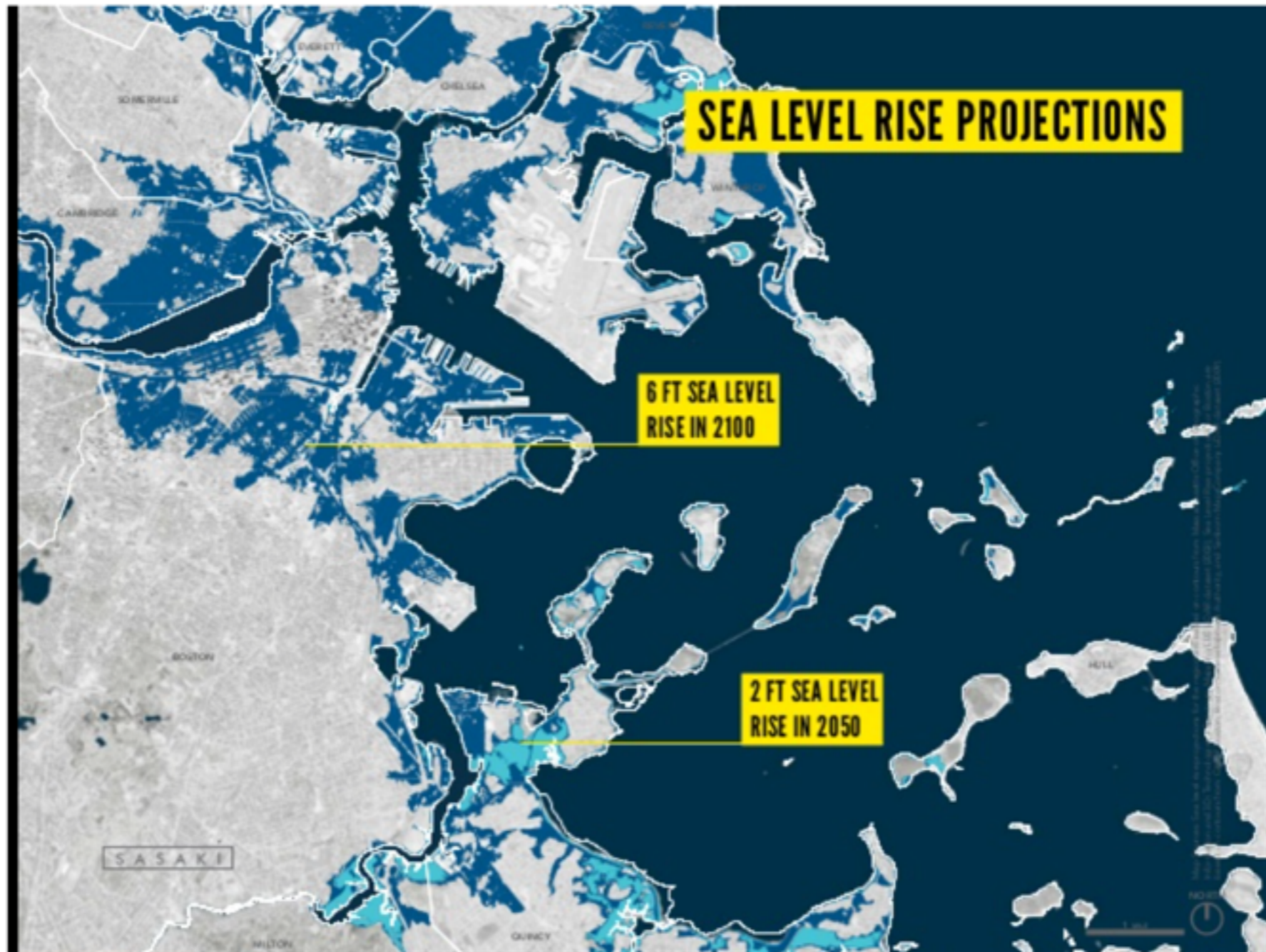
# Copenhagen Accord



- Last minute political agreement between leaders of US, EU, China, India, Brazil, South Africa
- “Pledge and review”
  - pledge domestic commitments with review to hold states accountable
  - monitoring and verification for all countries
  - submissions cover ~80% of 2005 global emissions
- Finance pledges (\$100 bn/yr by 2020) for mitigation, and commitment to fund adaptation
- Not adopted officially by conference (blocked by Bolivia, Cuba, Nicaragua, Venezuela, and Sudan)



Sasaki Associates conducted a research project on the impact of sea level rise in the greater Boston Area.



On Thursday we will have three guests with us from non-profits involved with climate action in the area.

6:30pm-7:30pm

E51-315

