

# Global Environmental Politics

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University College London

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# About the class

## ■ Instructor

- You can call me Felipe.
- E-mail: [c.balcazar@ucl.ac.uk](mailto:c.balcazar@ucl.ac.uk)
- Office hours: Wednesdays, 3.30PM-6.00PM
- My goal: To help you understanding the strategic incentives behind climate change regulation, and how can we achieve cooperation.

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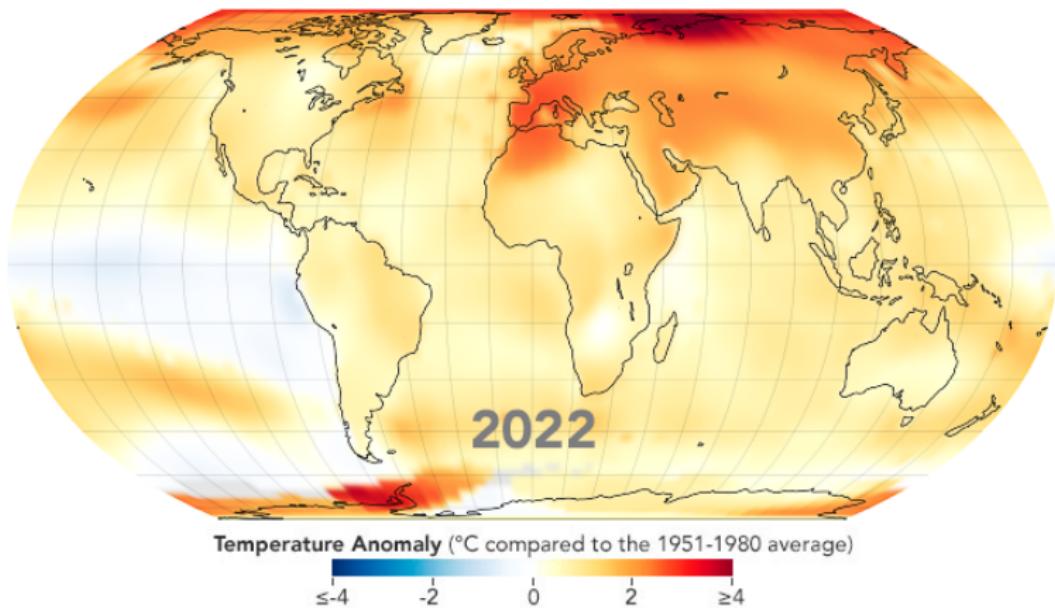
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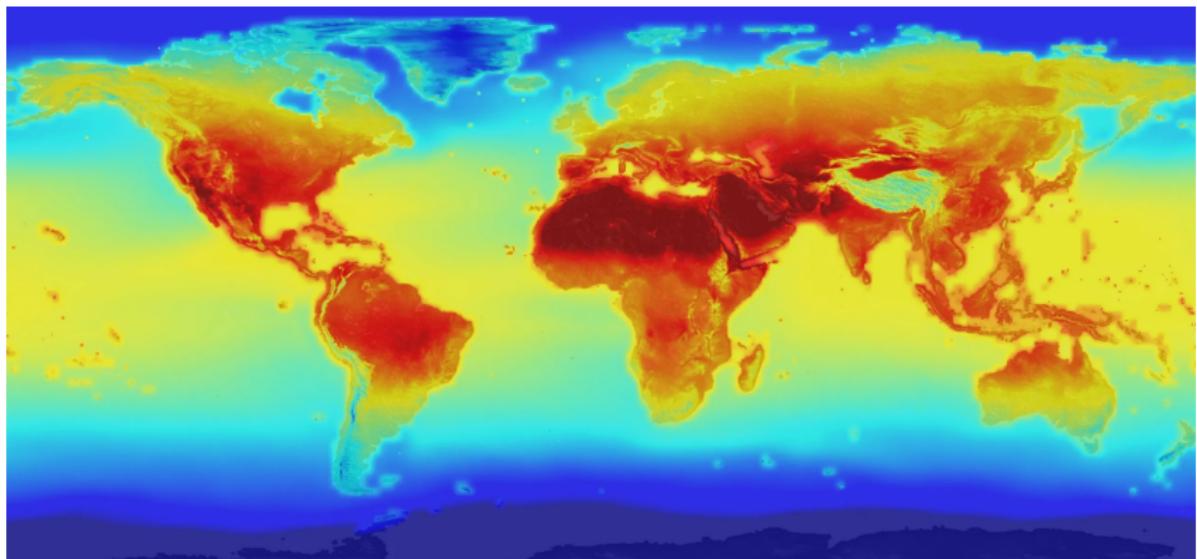
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# Climate change: A defining challenges for our lifetimes



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- Developing countries will be the most affected.
- Substantial drop in yields and agricultural varieties...

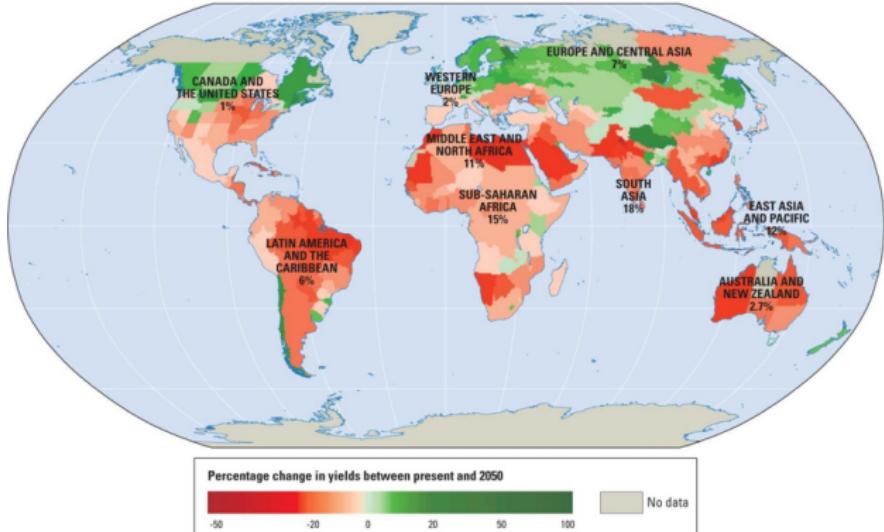
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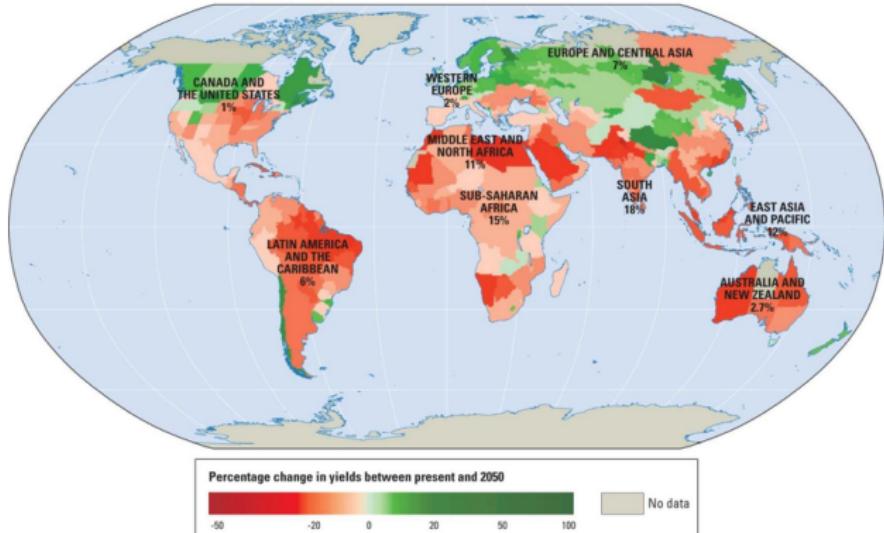
Map 1 Climate change will depress agricultural yields in most countries in 2050, given current agricultural practices and crop varieties



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- Increased average temperatures in the north.
- Developing countries will be the most affected.
- Substantial drop in yields and agricultural varieties...
  - ... and thus the first domino falls when economic needs increase.

## Climate change: A defining challenge for our lifetimes



- Threatens agriculture: land, fisheries and water sources.
- Human/econ costs: wildfires, extreme weather, rising sea levels.
- Has diffuse impacts and creates negative externalities.

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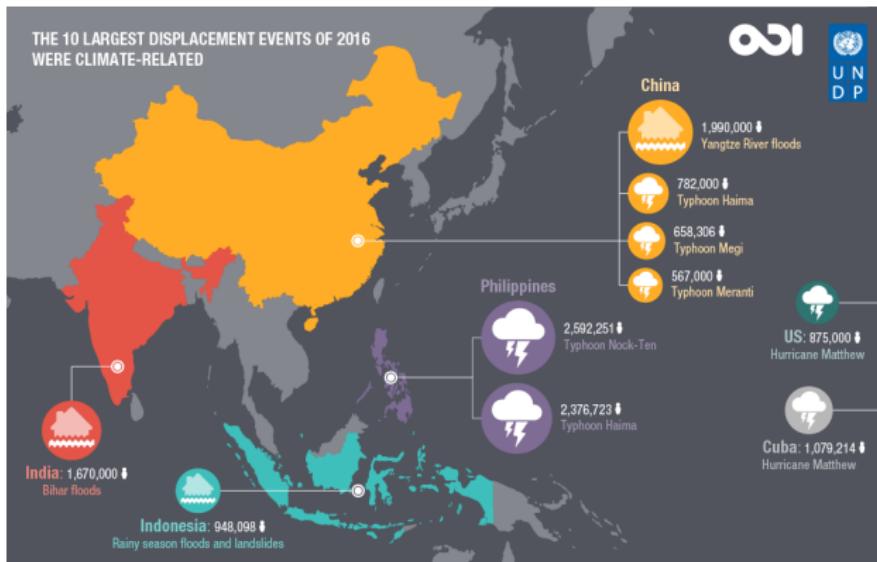
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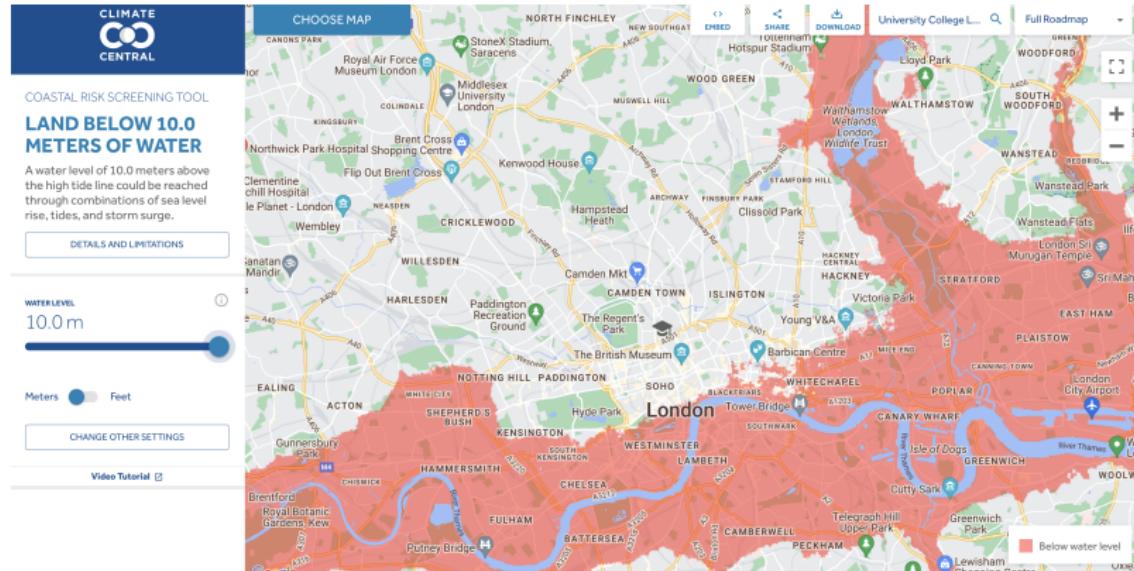
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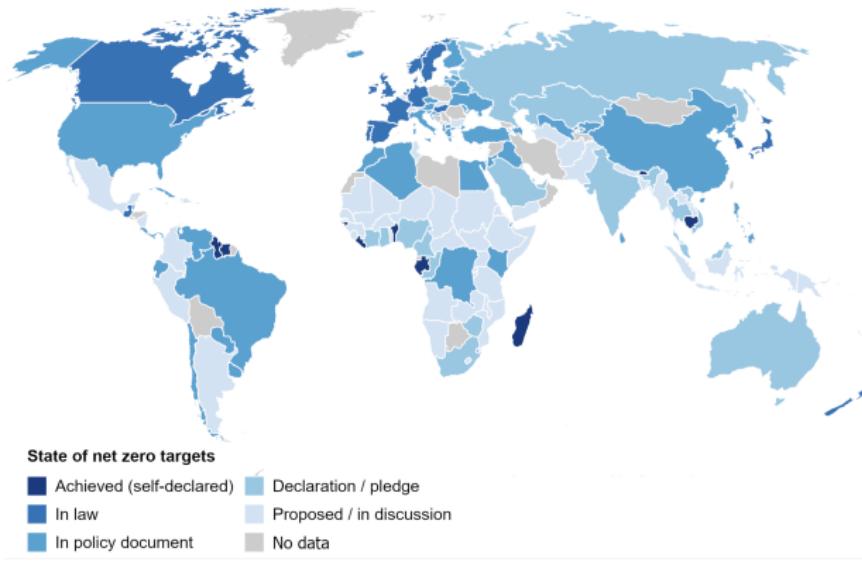
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# Why studying climate change in IR/IPE?



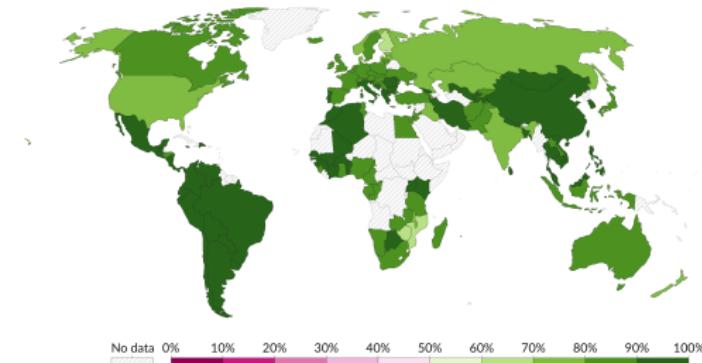
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# Why studying climate change in IR/IPE?

## Share of people who say their government should do more to tackle climate change, 2024

Our World  
in Data

Based on representative surveys of almost 130,000 people across 125 countries. Participants were asked: "Do you think the national government should do more to fight global warming?"



Data source: Andre et al. (2024). Globally representative evidence on the actual and perceived support for climate action. OurWorldinData.org/climate-change | CC BY

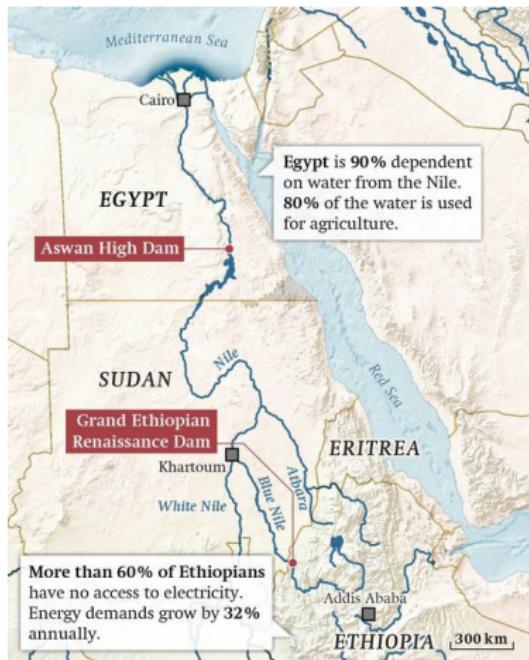
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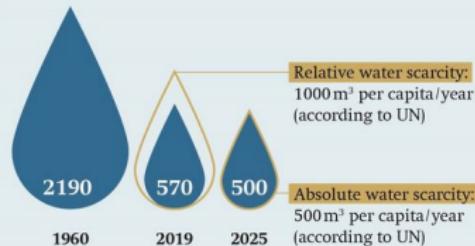
- Diffuse impacts and externalities need international cooperation!
- International cooperation needs domestic support!
- Creates climate (forced) migrants!
  - Scarce resources become scarcer.
  - Fuels political mobilization, both violent and peaceful.

# Could it exacerbate inter-state war?



## Egypt's water emergency

Available water amount per capita/year



## Possible impact of the Grand Ethiopian Renaissance Dam

**25%**

reduction of the Nile water flow to Egypt within a 5–7 year filling period of the reservoir

**30%**

reduction of the energy production of the Aswan High Dam (same period)

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- When resources start becoming scarce...
- ... can we sustain cooperation?

# Could it exacerbate inter-state war?

**The Indus Waters Treaty (IWT)**

- The distribution of waters of the Indus and its tributaries between India and Pakistan is governed by the Indus Water Treaty (IWT).
- Was signed on Sept 19, 1960, between India, Pakistan and a representative of World Bank after nine years of negotiations.
- Partition of India cut across the Indus river basin, which has the Indus river, plus five of its main tributaries.

**Western rivers**  
**Chenab, Jhelum, Indus**

India's rights over these rivers:  
Limited — can set up certain irrigation, run-of-the-river power plants, very limited storage, domestic and non-consumptive use, all subject to conditions



Baglihar dam on Chenab

**Eastern rivers**  
**Sutlej, Beas, Ravi**

India's rights over these rivers: All exclusive rights lie with India.

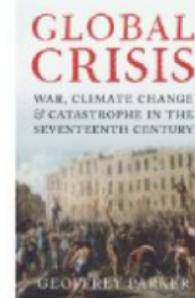
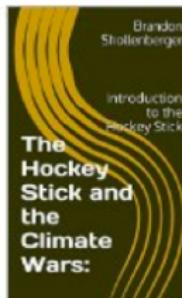
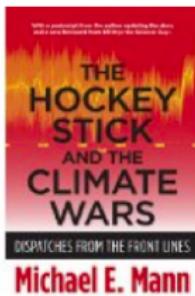
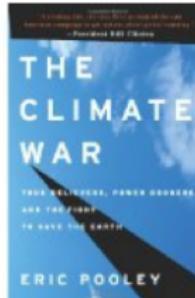
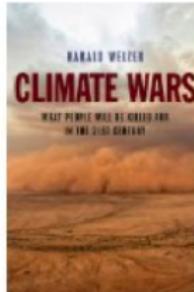
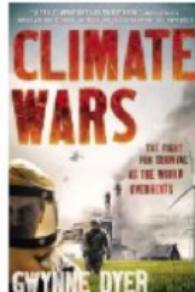


**Indus Waters Commission a success story**

- Once every five years, conducts a general inspection of all rivers in parts. Total inspection tours so far: Over 100
- Regularly meets once a year. Total meetings thus far, including those for taking up Pak objections: Over 100

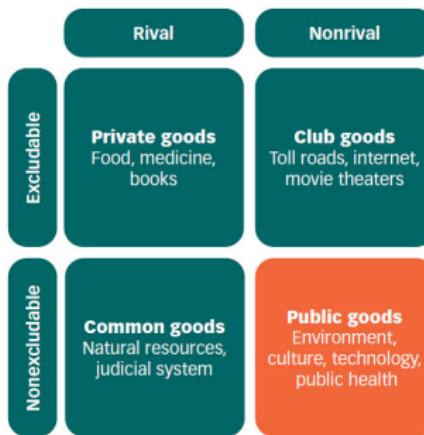
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# Climate change adaptation as a global public good

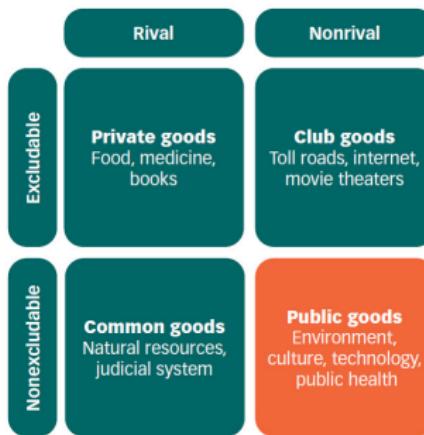


## ■ Central problem: achieving effective cooperation.

### ■ Obstacles to cooperation:

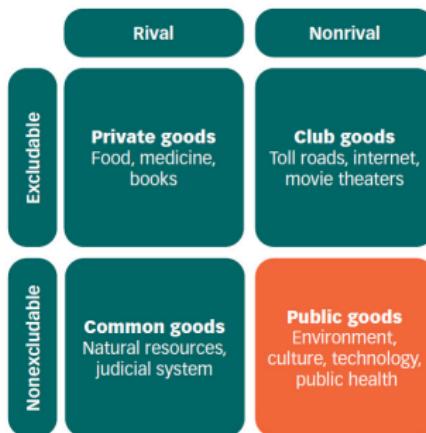
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- First movers may discourage cooperation by others (free-riding).
- Compensation schemes may be poorly defined.
- Globally inefficient institutions and markets.

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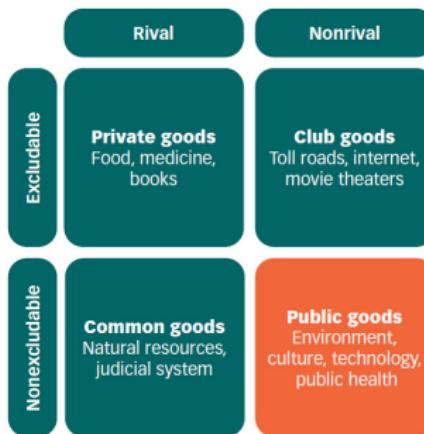
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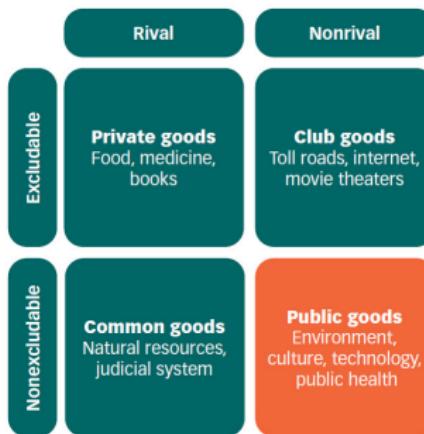
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- We will use all of these frameworks to assess the problem.

# Theory is important for this class and beyond

Think about incentives and conditions

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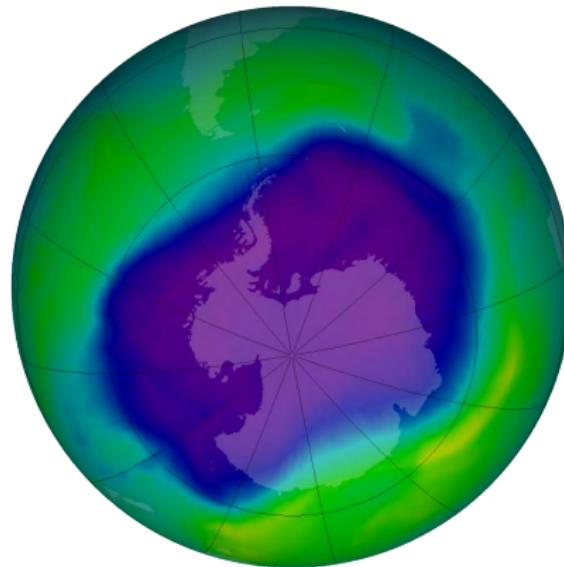
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# Global cooperation success? Ozone layer and CFCs

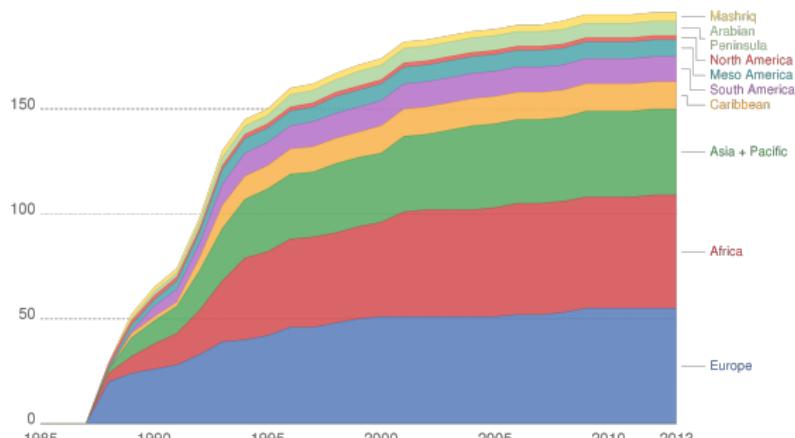


- Threat of ozone depletion due to use of CFCs.
- Since 1987, nearly all governments agreed limiting CFCs.
- We were successful! But why?

# Global cooperation success? Ozone layer and CFCs

## Subscriptions to the Montreal Protocol by region

Parties subscribed to the Montreal Protocol on substances that deplete the ozone layer (adopted by governments in 1987) by region. The Montreal Protocol aims to reduce and eventually eliminate the emissions of man-made ozone depleting substances.



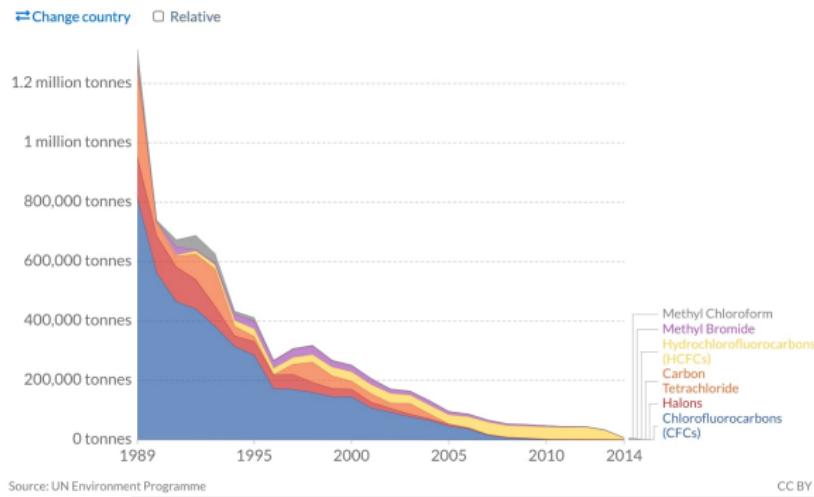
Source: United Nations Environment Programme

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# Global cooperation success? Ozone layer and CFCs

Ozone-depleting substance consumption, World, 1989 to 2014

Annual consumption of ozone-depleting substances (ODS). ODS consumption is measured units of ODS tonnes, which is the amount of ODS consumed, multiplied by their respective ozone depleting potential value.



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## Class exercise: why were we able to address the hole in the ozone layer?

- 1 Make groups of 2/3 people.
- 2 Who were the main actors? (4 max)
- 3 What were their incentives?
- 4 Why did we achieve international cooperation?
- 5 10 minutes.
  - Feel free to use the Internet.
  - I will chose someone from the group.
  - Representative will convey main ideas.

reset

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Next class...

## Strategic challenges for achieving cooperation!