



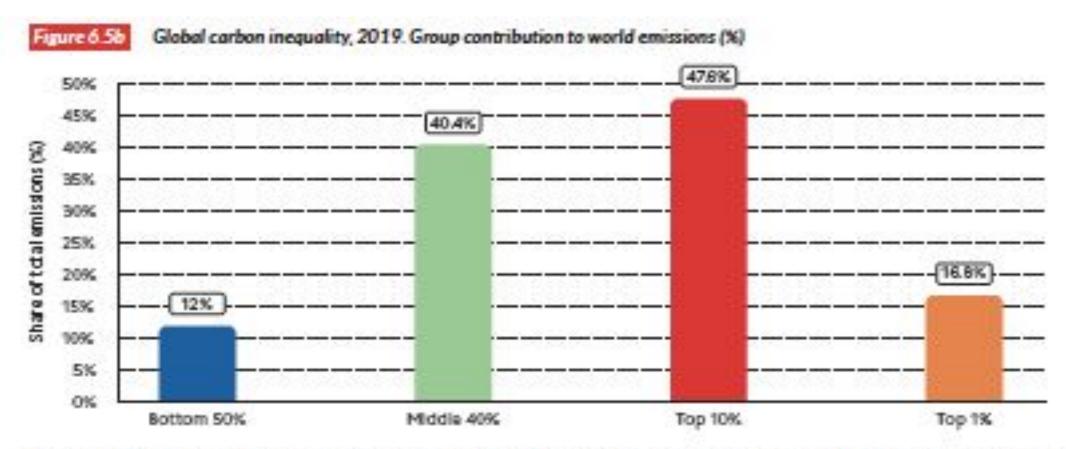
#### Good Economics for warmer times

Esther Duflo

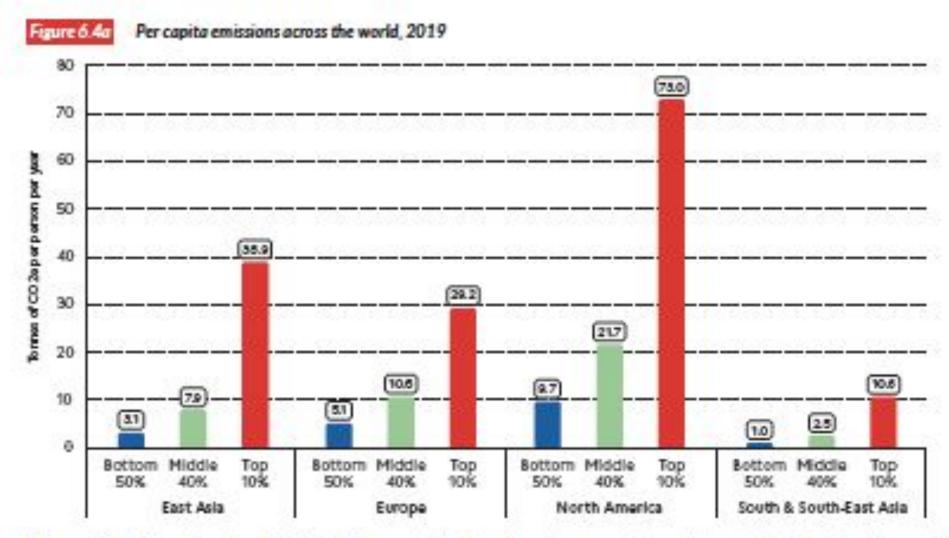


1. The emissions responsible for climate change are mainly due to the behavior of rich country citizen

# The 10-50 rule: 10% of the highest polluters worldwide are responsible for almost 50% of global emission.



Interpretation: Personal carbon footprints include emissions from domestic consumption, public and private investments as well as imports and exports of carbon embedded in goods and services traded with the rest of the world. Modeled estimates based on the systematic combination of tax data, household surveys and input-output tables. Emissions split equally within households. Sources and series: wir2022.wid.world/methodology and Chancel (2021).

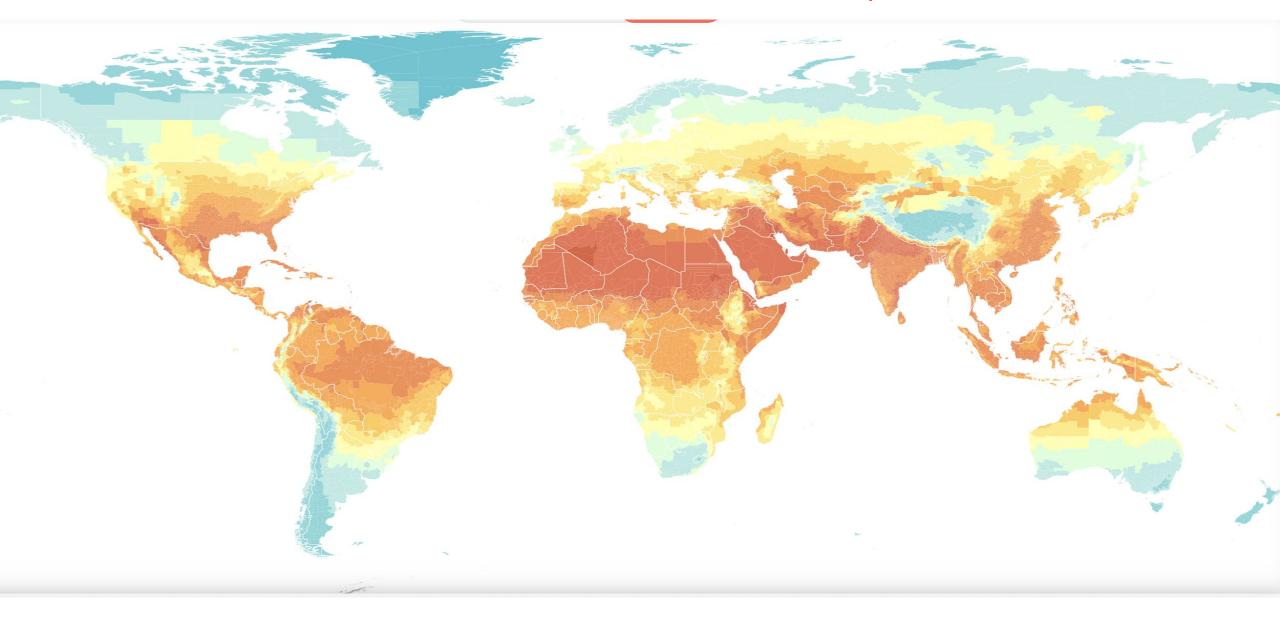


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2. The Costs of Climate change are going to be felt in the poorer part of the world



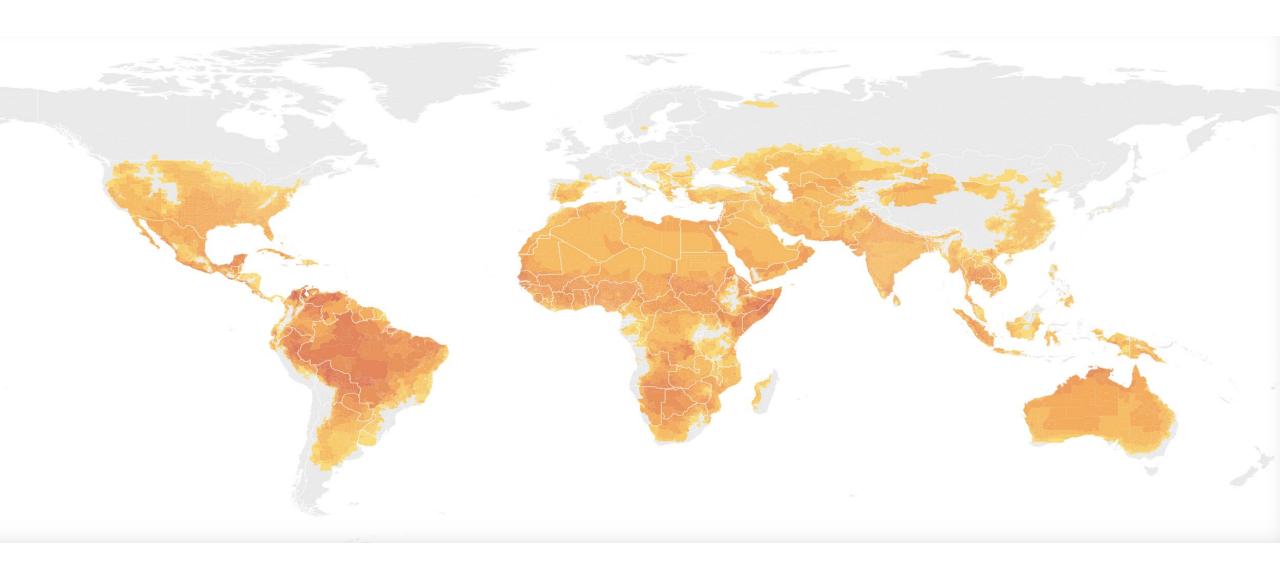
#### Poorer countries tend to be in warmer places



In the next 20 years they will add many more very hot days (>32 degrees)

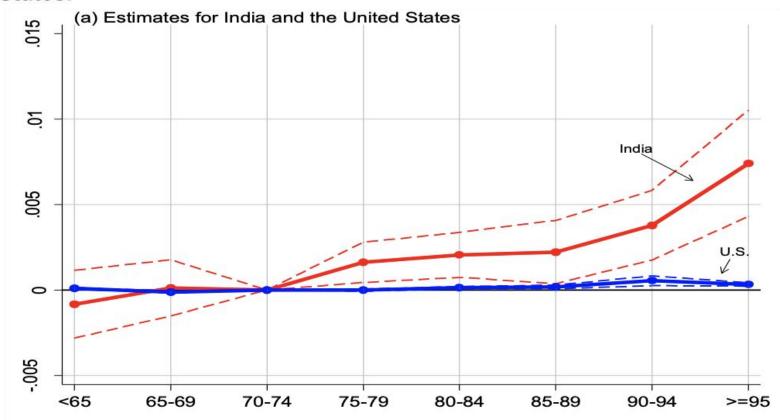


#### And even more so by 2050

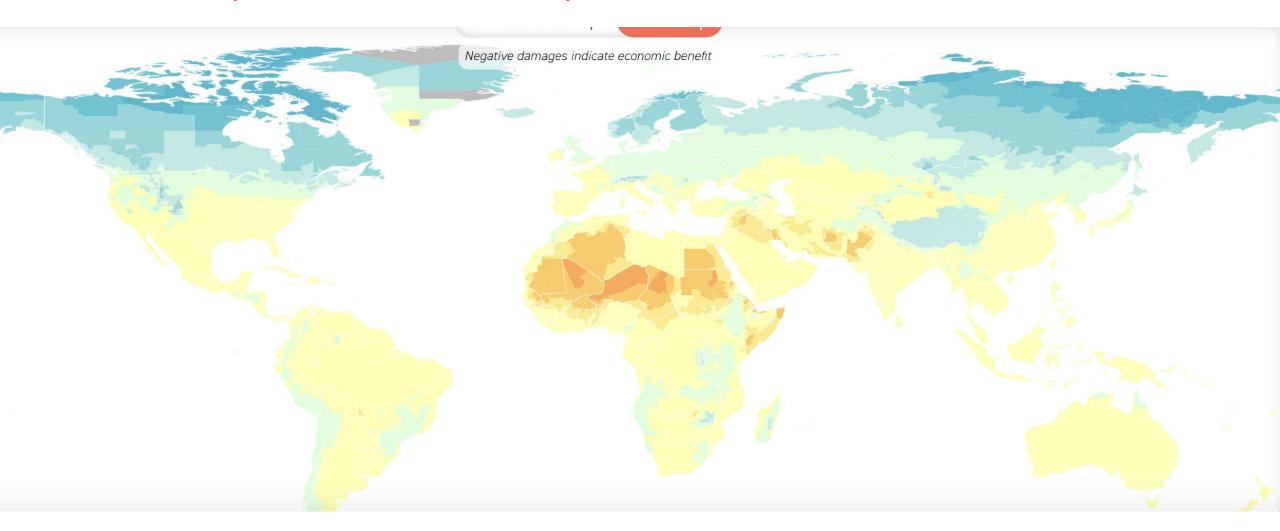


#### The cost of a given hot day is larger in poor countries

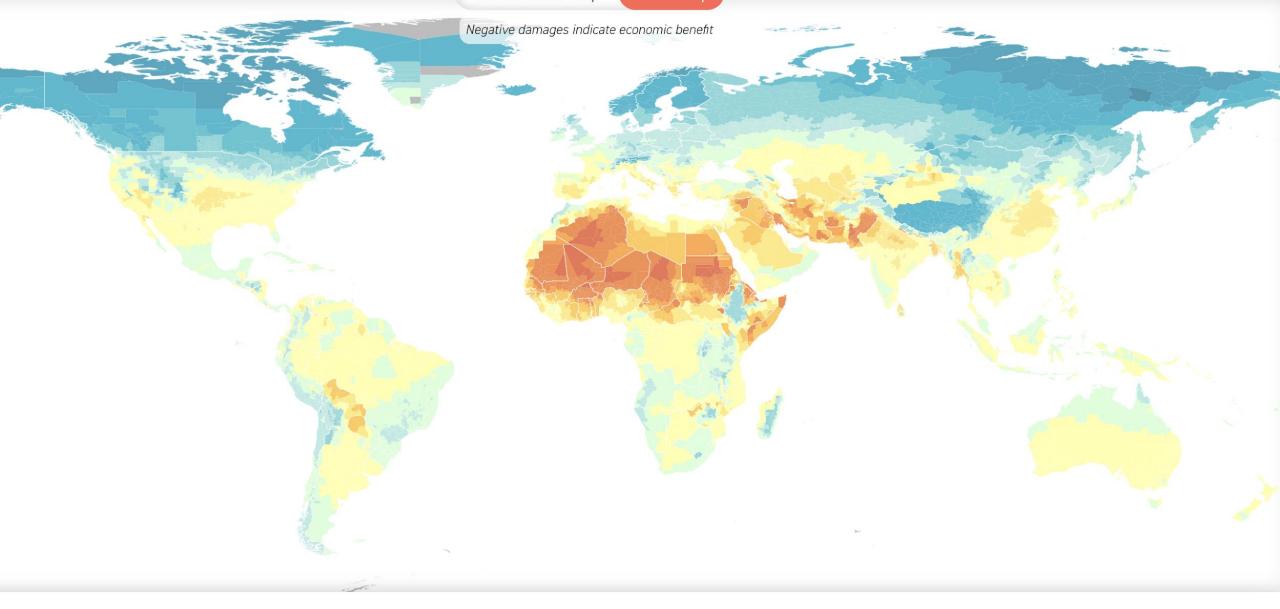
Figure 1: Impact of Daily Temperature on Log All-Age Mortality Rates in India and the United States.



#### Mortality costs, next 20 years



#### Mortality costs, by mid-century



3. This makes for a political problem from hell. We need to commit NOW to prevent climate change



# The World has not shown great generosity to poor countries during the COVID-19 crisis

- COVID-19 is a good rehearsal for a global crisis with global consequences
- Rich countries spent large amount of money on their own citizens
  - But despite the economic costs of the pandemic in poor countries, there was very little increase in aid there...
- The world set up COVAX to help purchase vaccines.
  - And rich countries proceeded to hog the resources.
- So we must make firm committments NOW, before the panic sets!! Even if
  the costs are larger in poor countries, experience shows that rich countries
  will try to save themselves first.

Where are we after COP-26



#### A somewhat unfair characterization of where we are

- Not enough money flowing towards LMIC
  - Commitments are too weak
  - Are not even carried out ... or renewed
  - The 100 billion pledge was never fulfilled.
  - Much too little of the money is spent on adaptation

 Reliance on technological solutions to continue with an intact lifestyle, but fueled in a carbon-neutral way.

Reliance on private commitments (ESG investment to fund ).

#### The mirage of the win-win

Large reliance in technological solutions in climate discussions

 Hope is that it will be sufficient to produce more efficiently, with better technologies (solar will be even chaper).

Huge attraction for wins wins (technologies and market)

- Impact of purely technological solutions is often disappointing in real life
  - Weatherization of homes
  - Energy consulting in India

#### We cannot rely on technological change alone

Large reliance in technological solutions in climate discussions

 Hope is that it will be sufficient to produce more efficiently, with better technologies

Search for win-wins...

- Impact of purely technological solutions is often disappointing in real life
  - Weatherization of homes
  - Energy consulting in India

What needs to happen at COP-27



We cannot tackle climate change without tackling redistribution across countries



In the absence of funds for adaptation, becoming richer as fast as possible is the only path many countries see to protect themselves.

## India criticised over coal at Cop26 - but real villain was climate injustice

Hannah Ellis-Petersen in Delhi

Experts say country's watering down of fossil fuel pledge reflected its lack of choices

 Energy needs are enormous to face hotter temperatures

### Why India Defended Coal at the Close of the COP26 Climate Summit

The third-largest carbon emitter argues it is balancing phasing out fossil fuels with meeting growing energy needs

We cannot tackle climate change without tackling redistribution within countries







# Punjab govt's move to stop free power to farmers 'midsummer madness': Sukhbir Shiromani Akali Dal core committee to meet in Chandigarh on May 30 to consider party's strategy on Congress govt's decision to

replace it with direct benefit transfer of subsidy

## Blueprint for serious commitment to funding for LMICs that takes both into account

- Vacuous promises will not be sufficient.
- We need a commitment to a MECHANISM to raise money to be spent in poor countries
- Since, as we saw, the contribution to the problem is intimately linked to inequality, why not make the solution also tied up to inequality:
  - Mimimum taxation of very wealthy individuals and corporations
  - Surcharge can be linked to a proper valuation of the social costs of their activities via the accounting of the social cost of carbon (properly valued)
  - To be assigned to a climate change fund.

#### An open minded approach to find out what works

- There are no silver bullets
  - Full decarbonization in rich economies will be difficult at current levels of consumption
  - We need to learn to consume less
  - We still know very little about how to adapt and mitigate in the poorer countries.
  - We need to make regulation work better.

But we can learn....

The approach at J-PAL K-CAI.

Generates evidence and catalyze the scale-up of high-impact policy solutions at the nexus of climate change and poverty alleviation

Four pillars:

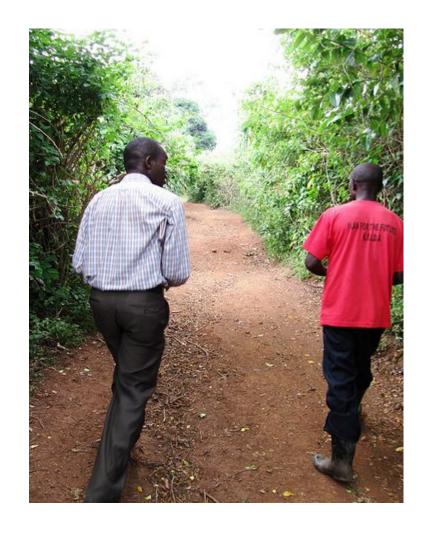
Mitigation Adaptation

Co-pollutants Energy access.



#### Mitigation: Payment for environmental services

- RCT in Uganda for conservation
- Tree cover declined by 4% in treatment villages compared to 9% in control
- No displacement of deforestation onto other land
- \$0.57 per ton CO2 delayed, benefits
   2.4 X cost



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## **Co-pollutant** cap and trade scheme for particulate matter

- Ground breaking pilot <u>Emissions Trading</u>
   <u>Scheme</u> in Surat
- Plants assigned to the emissions market reduced emissions by 20–30 percent
- The ETS project is currently being adapted and scaled in Gujarat and Punjab



#### **Adaptation** Rainwater harvesting



Partner: Sahel Consulting, Ministry of

**Environment of Niger** 

Researchers: Jenny Aker, Kelsey Jack

- Training and cash transfers for construction of demi-lunes (half-moon shaped berms, constructed on the field to collect rainfall and runoff)
- Randomly assign 180 villages (2,861 farmers) to control or treatment groups (training only, training plus UCT-early, training plus CCT-late, training plus UCT-early)\*
- Training alone resulted in >95% take up, sustained for 3+ years
- Crop income increased by 12-14%
- 2x as likely to bring land back into production, 1/3 less likely to retire land from production

Conclusion: let's see what will happen at COP27....

