

Yale

New Challenges to International Cooperation: Automation and Climate Change

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MacMillan Center

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- ▶ Effect is stronger in places with low state capacity as legibility.

This class: Climate change and migration

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 - ▶ Benefits depend on opportunity at destination:
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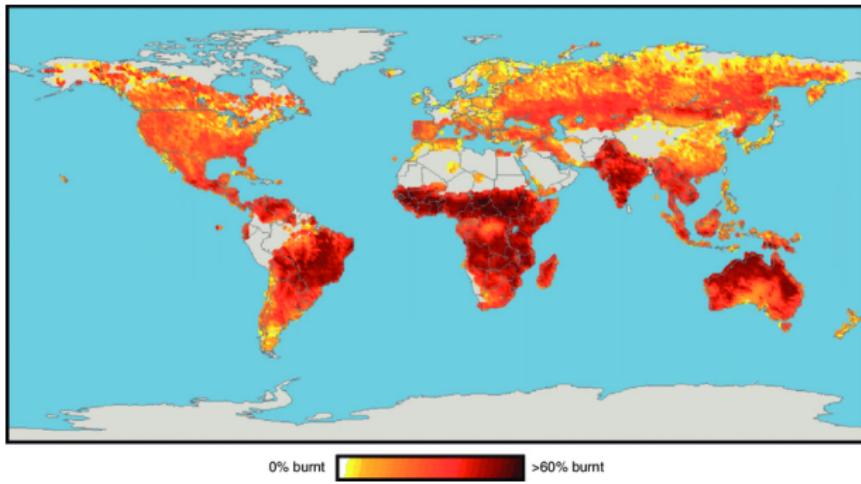
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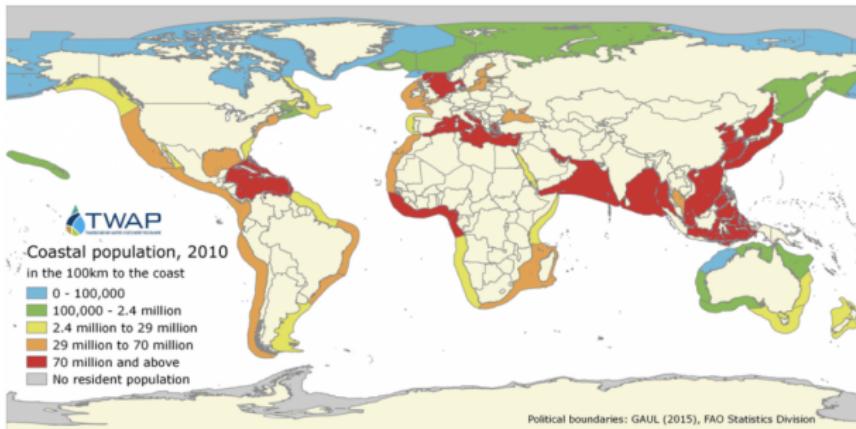
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 - ▶ Scarcer resources ⇒ conflict.
 - ▶ Spark in-group/out-group attitudes ⇒ conflict.
- ▶ Unclear if current forms of global adaptation are working.
 - ▶ Hardening borders; circular migration; remittances.
 - ▶ International compacts for forced displacement.

Climate migration/displacement will be widespread



- ▶ Vulnerable areas host vast swaths of people.
- ▶ 143 million climate migrants by 2050.
- ▶ Different patterns but same story: pressure on resources.
- ▶ Not only a problem of developing countries.

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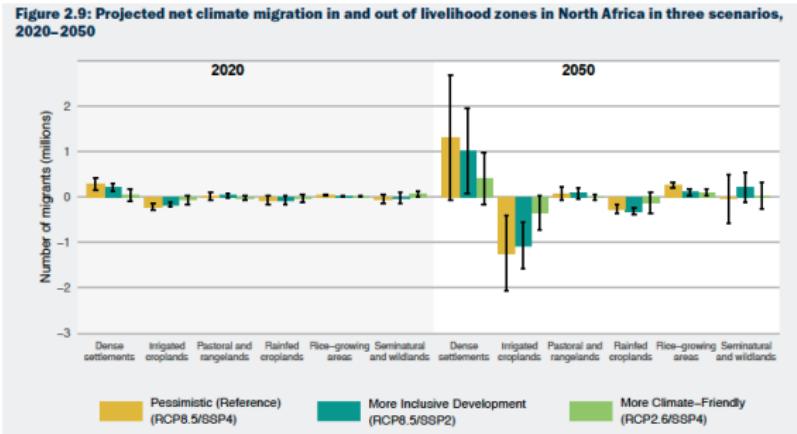
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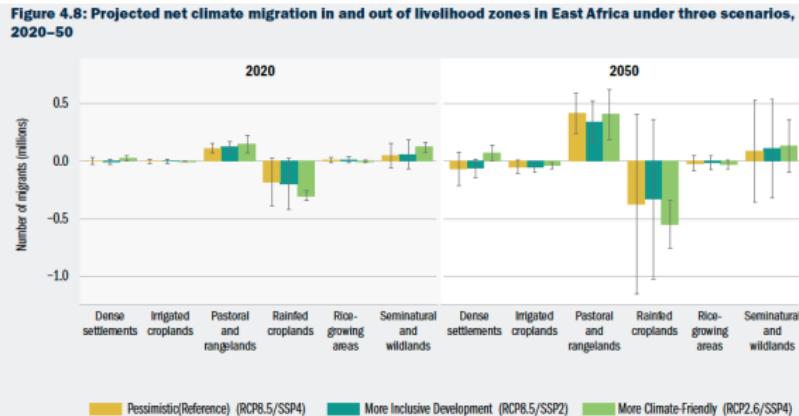
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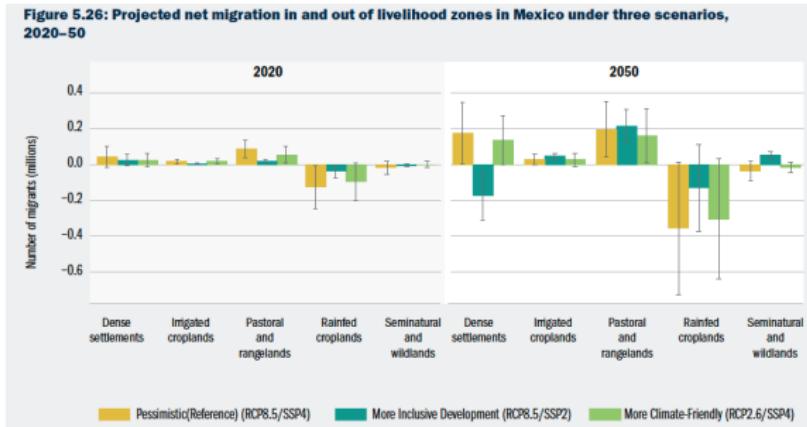
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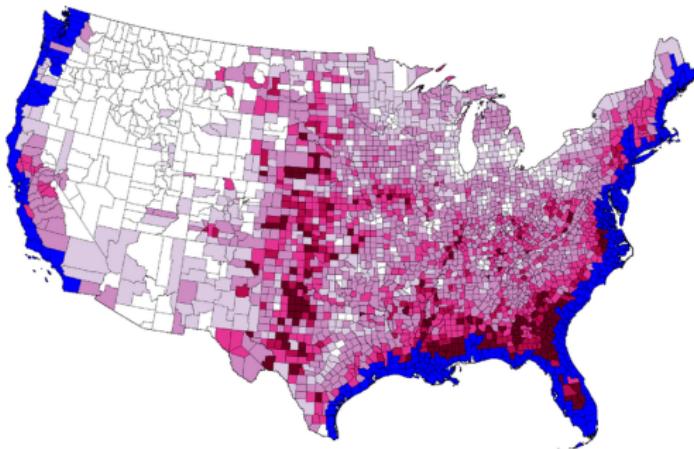
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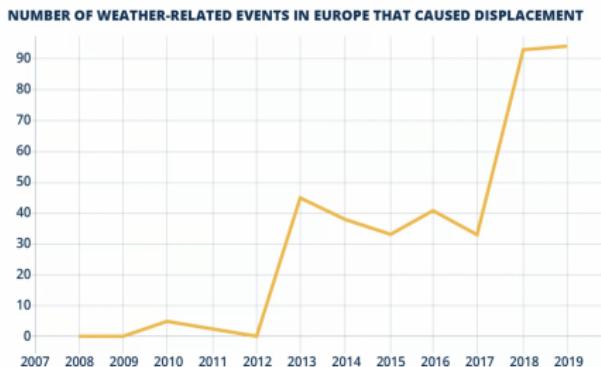
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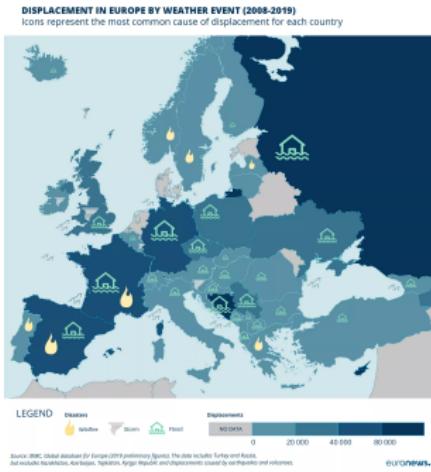
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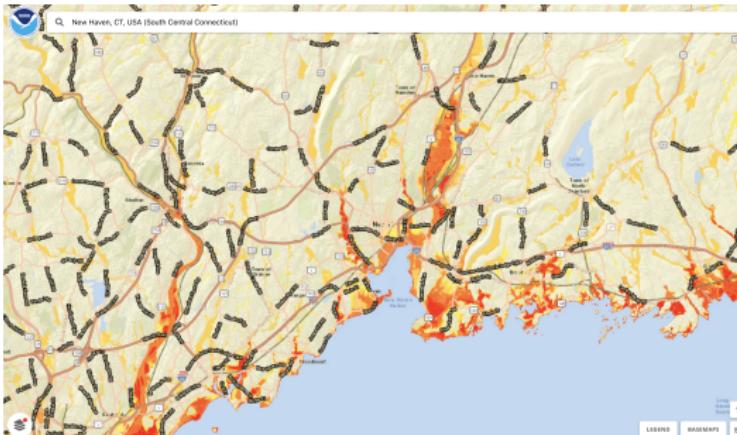
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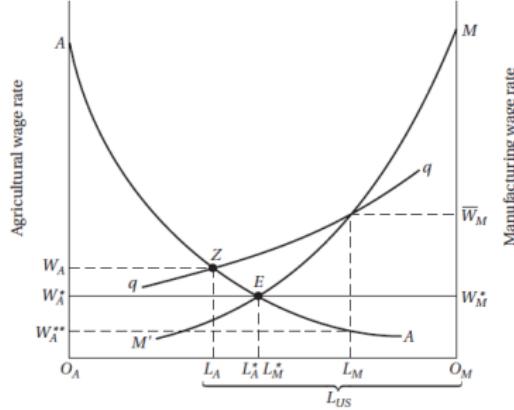
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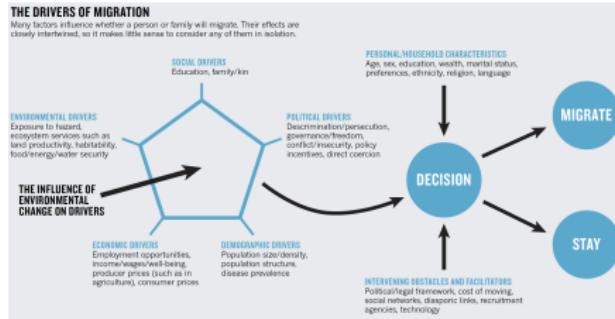
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The decisions to migrate



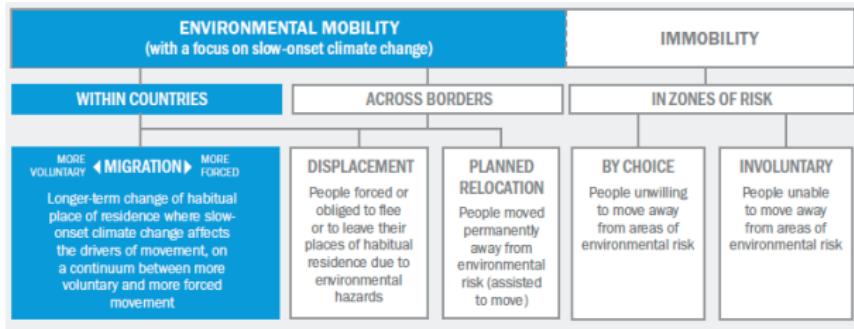
- ▶ Migration until marginal benefit = marginal cost.
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 - ▶ Transportation costs; housing; local adaptation; $\text{Pr}(\text{obtain job})$.
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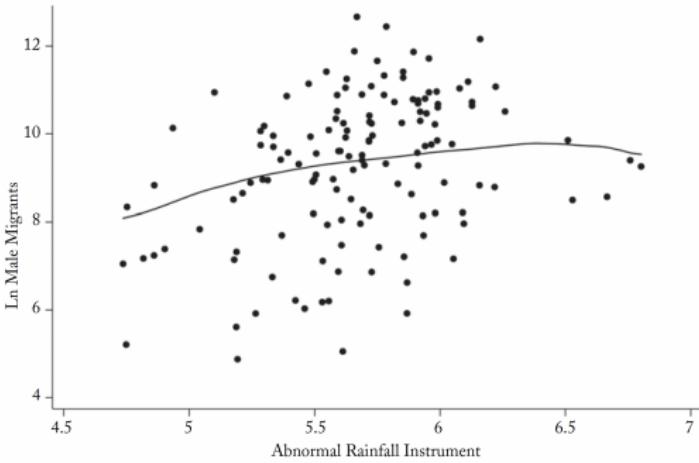
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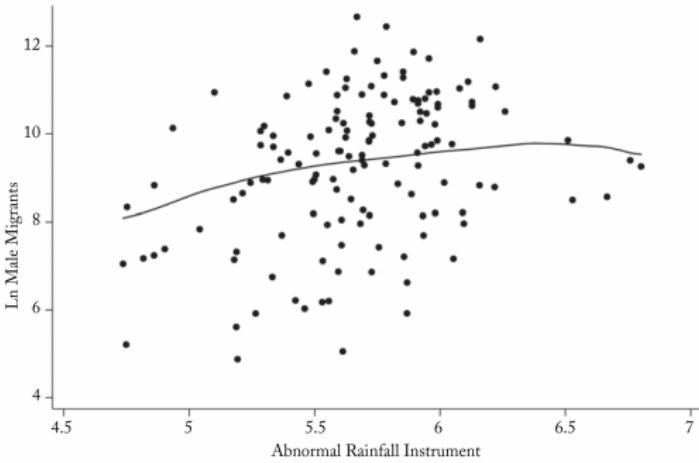
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Climate change impact decision to migrate



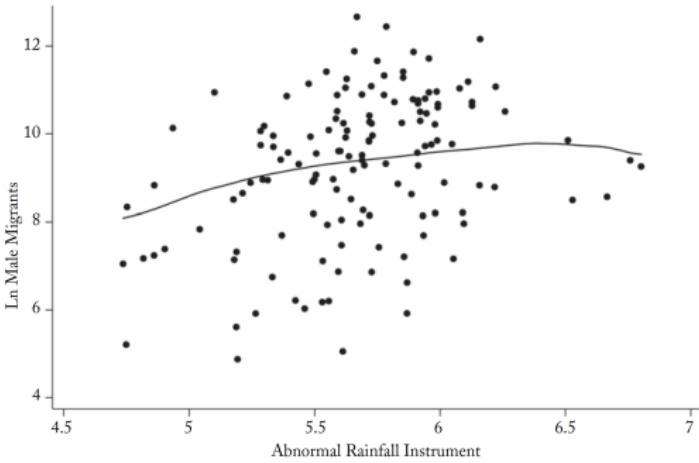
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- Uninformed about risk of attempted migration.

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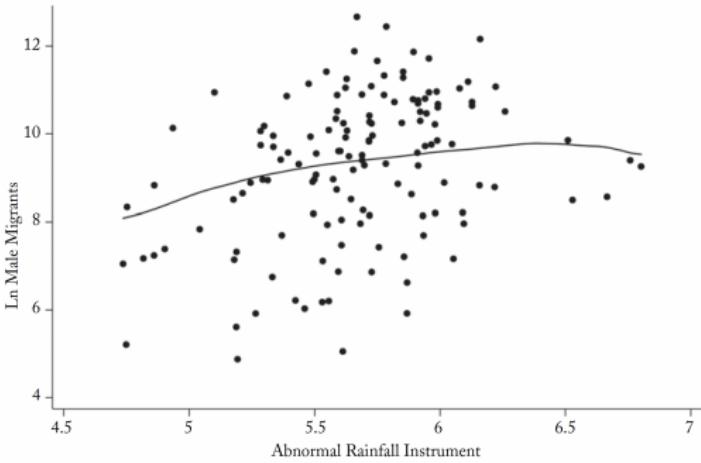
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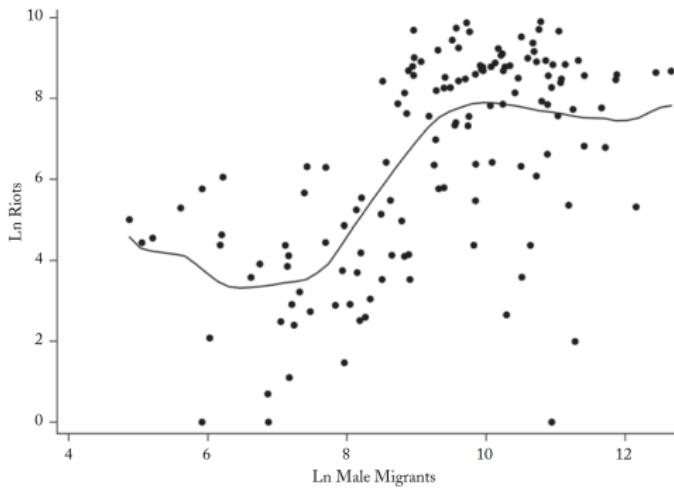
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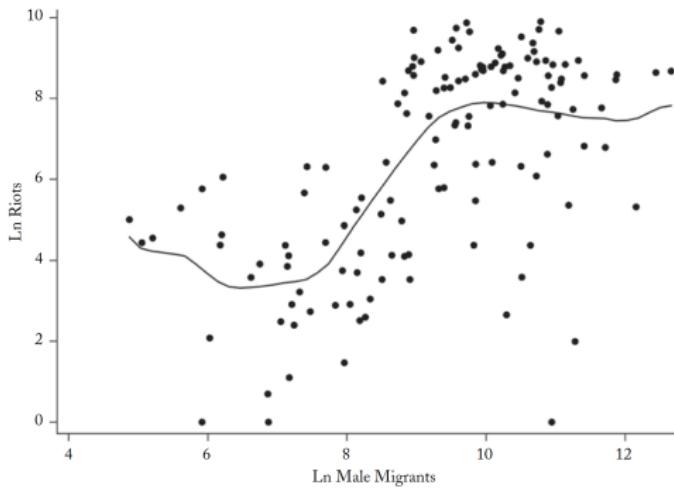
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Backlash against migrants



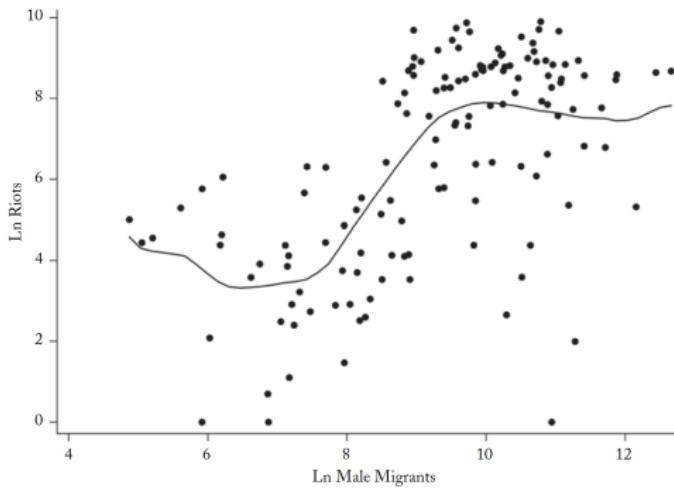
- \uparrow resources \Rightarrow Scarcity \Rightarrow \uparrow conflict.
- Locals may treat migrants as outsiders, even if from same country.
- Pie is the same size but there are more “mouths” to feed.

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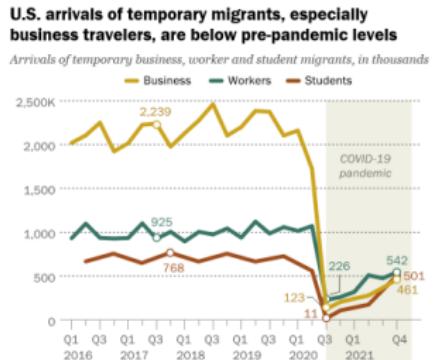
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Class exercise: Should we prevent migration? Should we grow the pie?

1. Make groups of 2/3 people.
2. What would the consequences of restricting migration be?
3. If we grow the pie, is the possibility of redistribution incentive compatible?
4. Worst-case scenario, how can we address negative out-group sentiment?
5. 10 minutes.
 - ▶ Feel free to use the Internet.

reset

Pathways for international migration



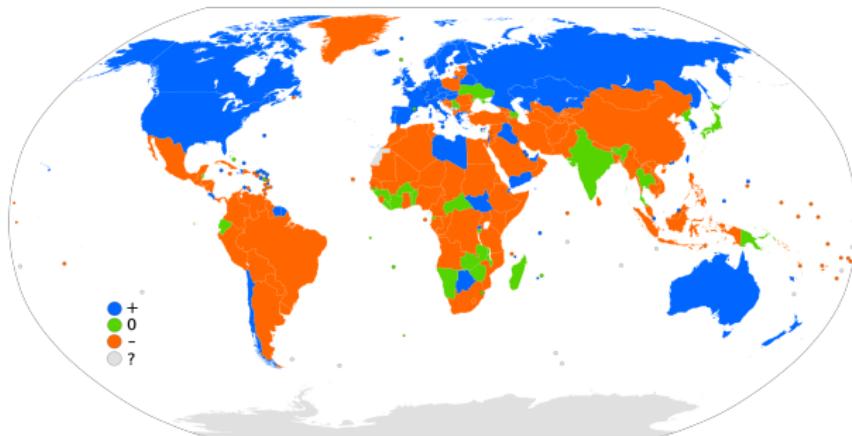
Notes: Data labels shown for April-June 2017, April-June 2020 and July-September 2021, except for the "Students" plot; its 2017 data label is for July-September. Due to seasonal variation, student arrivals shown only for January-March and July-September, except April-June 2020. Years shown are fiscal years, which run Oct. 1-Sept. 30 of designated year.

Source: Pew Research Center analysis of U.S. Department of Homeland Security Office of Immigration Statistics data.

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 - ▶ Permanent or circular.
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Compact agreement on climate migration

Finding	Characteristics/implications	Strength* of evidence
Migration is a key component of sustainable livelihoods and household adaptive capacity in low and middle income countries	<p>Migration is one of many possible ways in which households adapt to and cope with climatic and nonclimatic risks/uncertainty.</p> <p>In countries with weak institutions, migration may be the only form of adaptation available.</p> <p>Households that lack migration options are inherently more vulnerable and less adaptable to the impacts of climatic variability and change.</p>	Broad base of evidence from wide range of empirical studies in multiple regions
Reliance on migration to meet rural livelihood needs is growing	<p>Growing reliance on migration is a common trend across less developed countries.</p> <p>Seasonal migration is common in regions with highly seasonal climates.</p> <p>Migration for longer durations is becoming increasingly common.</p> <p>Most migrants are young adults.</p>	Broad base of evidence from wide range of empirical studies in multiple regions
Most climate-related migration takes place across short distances within countries or across contiguous borders	<p>Local migration has relatively low costs.</p> <p>The destination may be urban or rural, depending on wage-earning opportunities.</p>	Broad base of evidence from wide range of empirical studies in multiple regions

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 - ▶ Reduce climate-related migration and displacement.
 - ▶ Increase adaptive capacity and resilience.
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Finding	Characteristics/implications	Strength* of evidence
Households that receive remittances from migrants have greater long-term social and economic prospects	Remittances from international migrants are typically of greater value than remittances received from internal migrants. Within communities, remittances increase socioeconomic inequality.	Broad base of evidence from wide range of empirical studies in multiple regions
Rural to urban migration rates are high and growing	Remittances can help improve prospects for disaster recovery and to some extent for preparedness and adaptation, but the overall contribution to building climate resiliency is uncertain.	Conclusive statistical evidence
Households that participate in rural to urban resource-sharing networks have greater food security	Rural to urban migration rates are growing especially rapidly in Sub-Saharan Africa, although that region is less urbanized than others. Such networks are likely to grow in importance as impacts of climate change on food production systems strengthen. Households lacking access to such networks are more vulnerable.	Strong empirical evidence from Sub-Saharan Africa and South America
Migration is a key means of recovering from extreme weather events, including floods and droughts	After an extreme event, households send young adults to seek wage labor opportunities to rebuild lost/damaged housing and livelihood assets. The duration and destination of migration vary by context.	Strong empirical evidence from Central America, East Africa, and South and Southeast Asia

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People in remote areas have worse migration opportunities and adaptation prospects	Remoteness and isolation are important factors in the vulnerability of mountain populations and some dryland areas. People living in areas with good access to roads, markets, and social infrastructure have a greater range of adaptation options and potential migration destinations.	Strong empirical evidence from dryland areas of Africa, the Andes, and Nepal
Gender dimensions can change over time, but have important implications for climate migration	Where only men migrate, women, children, people with disabilities, and the elderly left behind are at greater risk of food insecurity and personal safety. Land degradation and climatic variability can force higher levels of gendered migration or longer-duration migration. Gender dimensions can change over time.	Case study evidence from Bangladesh, Nepal, and Pakistan; more research needed in other countries and regions
Empirical research shows persuasively that climate resilience must be built urgently given the known risks, but there remains uncertainty about which strategies hold the greatest promise and how to implement them	The impacts of extreme heat, dryness, and variability in precipitation on regional migration patterns will grow through 2050 but can be moderated by sound development strategies. Climate impacts on food systems, water resources, and livelihoods accelerate in nonlinear fashion after 2050, as will the risks of large scale displacements and distress migration. Business as usual will fall short of meeting future adaptation needs.	Climate model evidence Increasingly strong Models of future crop yields vary but decline for several crops Systems understandings of current climate-migration dynamics are increasingly strong, with strong agreement across the research literature Further empirical research on resilience-building needed across most regions

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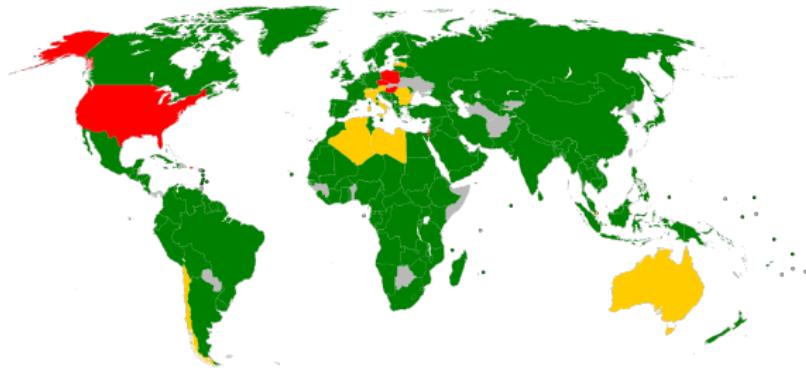
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	8 SAVE LIVES	9 COUNTER SMUGGLING	10 TRADEABLE TRAVEL DOCUMENTS	11 MANAGE BORDER	12 SCREENING AND REFUGIAL	13 ALTERNATIVES TO DETENTION	14 CONSULAR PROTECTION
	16 INCLUSION AND SOCIAL COHESION	17 ELIMINATE DISCRIMINATION	18 SKILLS DEVELOPMENT AND RECOGNITION	19 MIGRANT AND REFUGEE CONTRIBUTIONS	20 REMITTANCES	21 MIGRANTS AND REFUGEE INTEGRATION	22 SOCIAL PROTECTION
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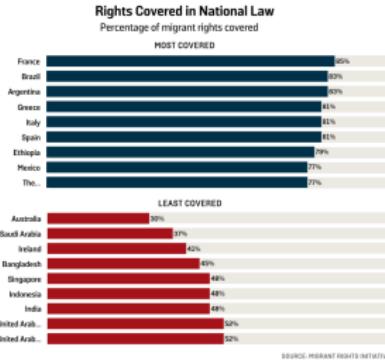
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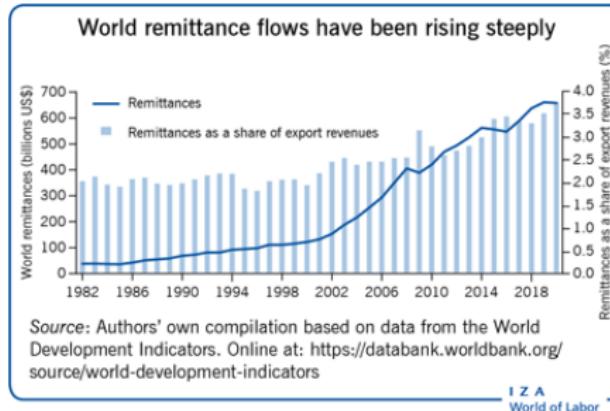
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Remittances and circular migration



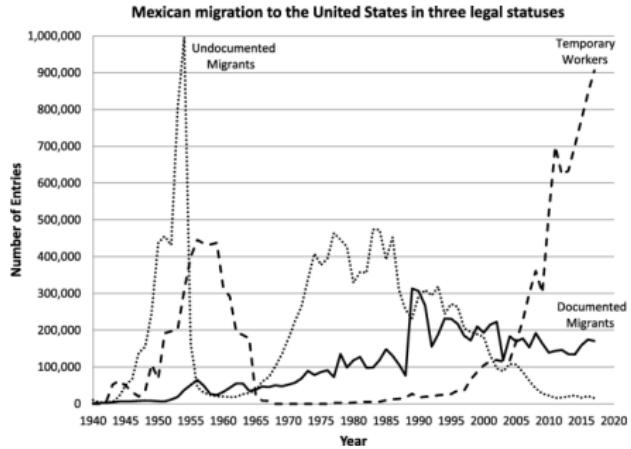
- ▶ Temporary or permanent work in supply scarce industries.
 - ▶ Agriculture and other low-skilled manual work.
 - ▶ Central America; the Small Island States; Southeast Asia.
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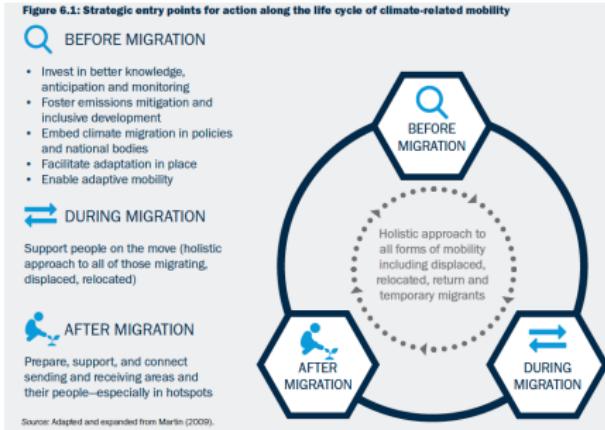
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Hardening borders



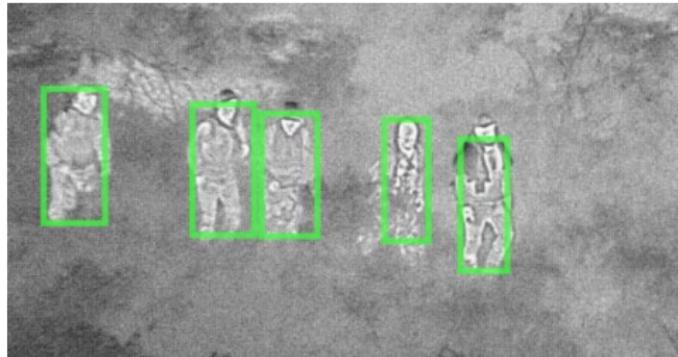
- ▶ Migration creates incentives for states to harden borders.
 - ▶ Threat multiplier.
- ▶ New technology (e.g., AI) has made it easier/less costly.
- ▶ Would-be migrants may be trapped in vulnerability.
 - ▶ Exacerbates impact on local conflict; conflict externalities.
- ▶ Are more open borders better or worse?

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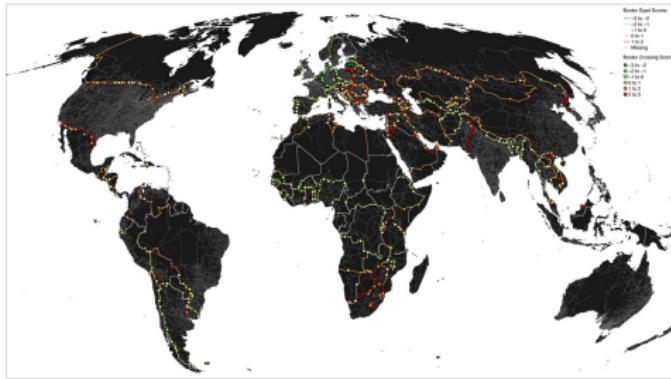
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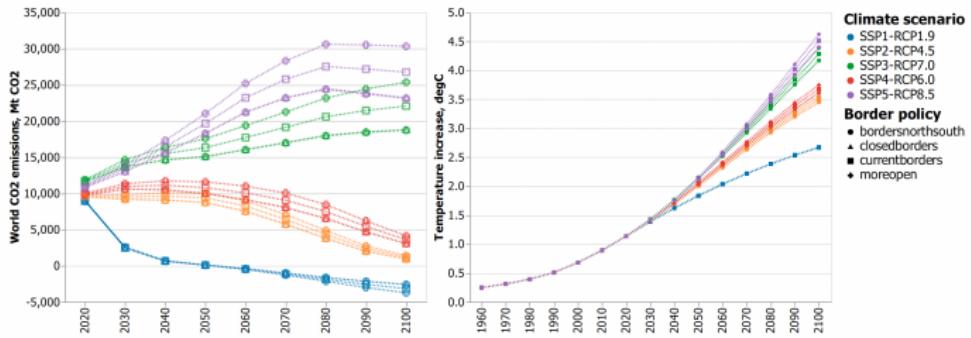


Fig. 3. Effect of border policies on world CO₂ emissions in megatons CO₂ (Left) and global average temperature increase in degrees Celsius (Right). Colors illustrate all five SSP narratives coupled to relevant RCP. Symbol shapes represent border policies.

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Class exercise: Are these policies the right policies?

1. Make groups of 2/3 people.
2. Has increased cooperation climate change helped? To what extent?
3. Are these policies meant to help the most vulnerable populations?
4. What could be the unintended consequences of the status quo on climate cooperation?
5. 10 minutes.
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reset

Next class...

**How can we generate domestic coalitions for
climate change?!**