

Migration-Climate from a Social Science Perspective

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Prepared for NAS Workshop Climate Change & Human Migration, March 2024

Outline

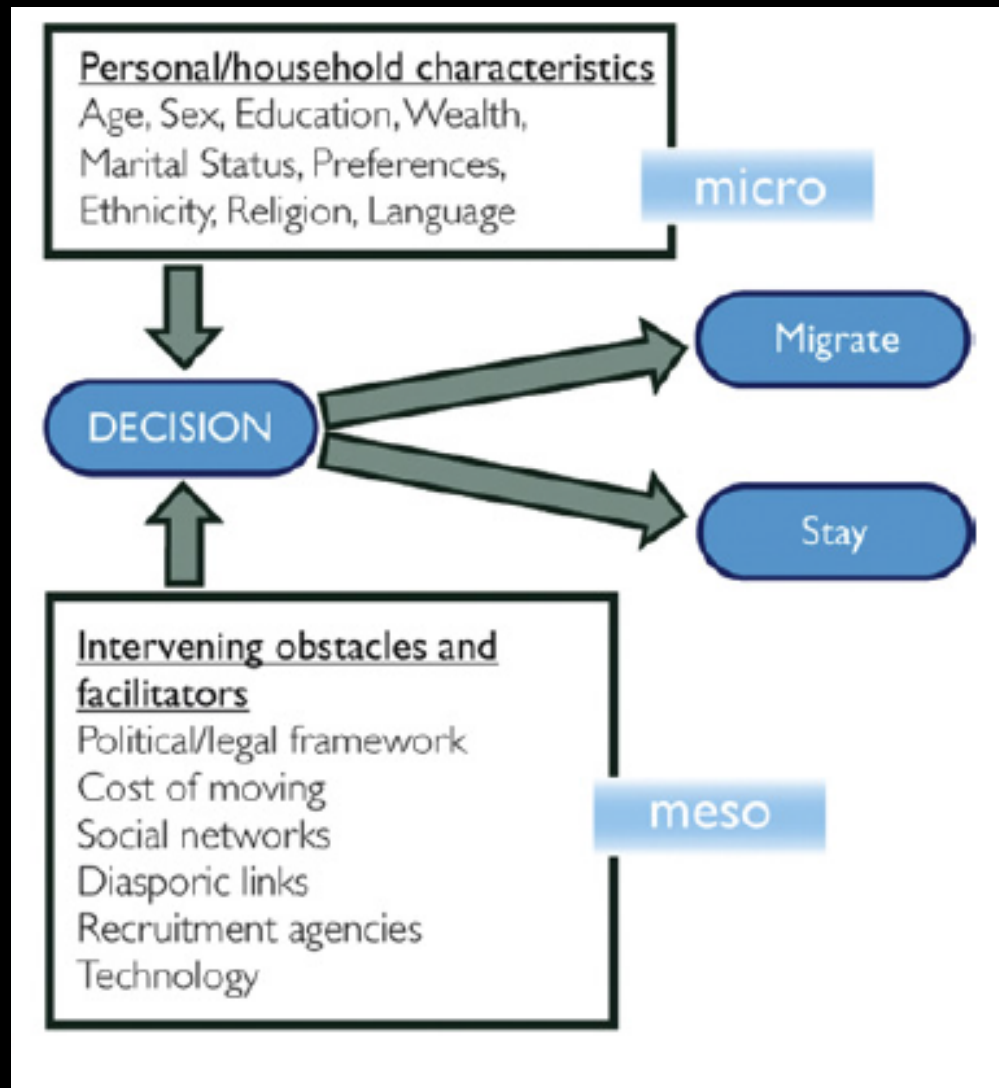
- Migration as a complex social process
- Migration data sources, research approaches
- What's missing?
 - Data needs
- Conclusion



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- **Migration as a complex social process**
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Black et al. 2011

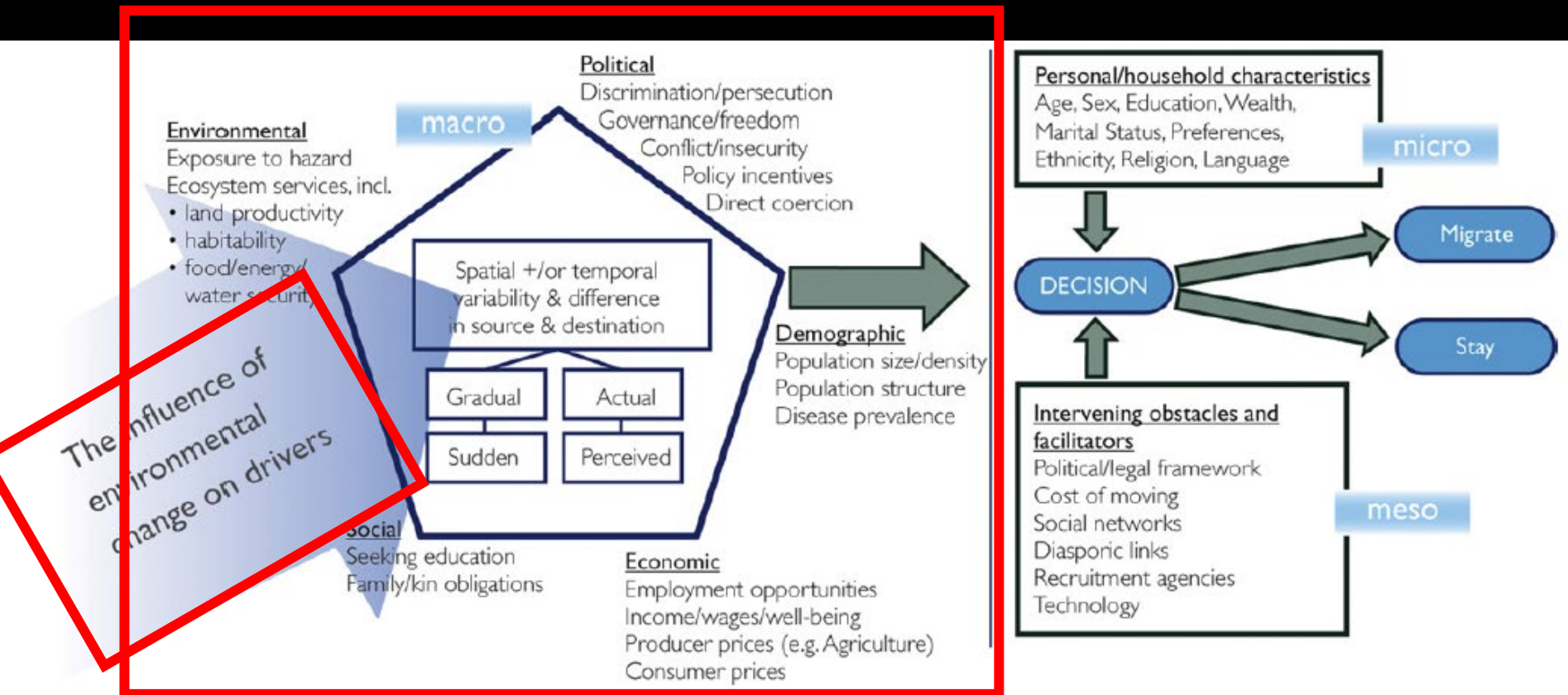
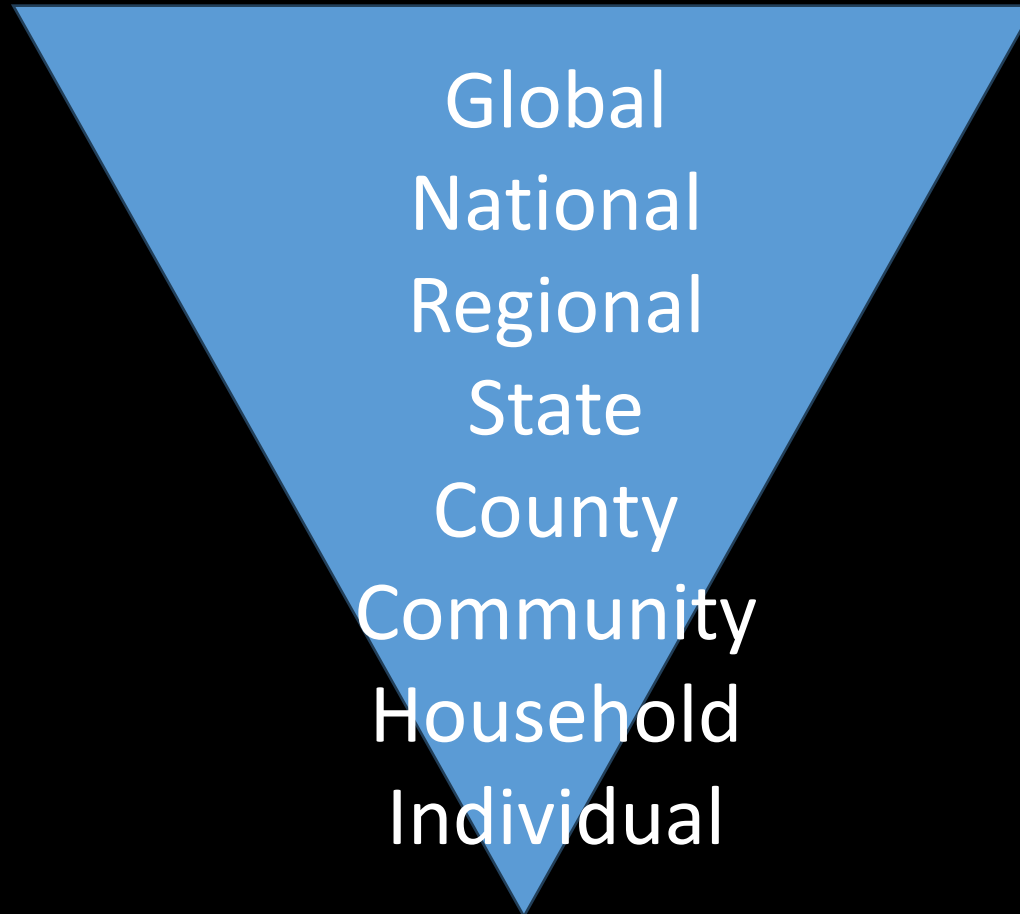


Fig. 2. A conceptual framework for the 'drivers of migration'.

Black et al. 2011

Food security – will hear from Cascade

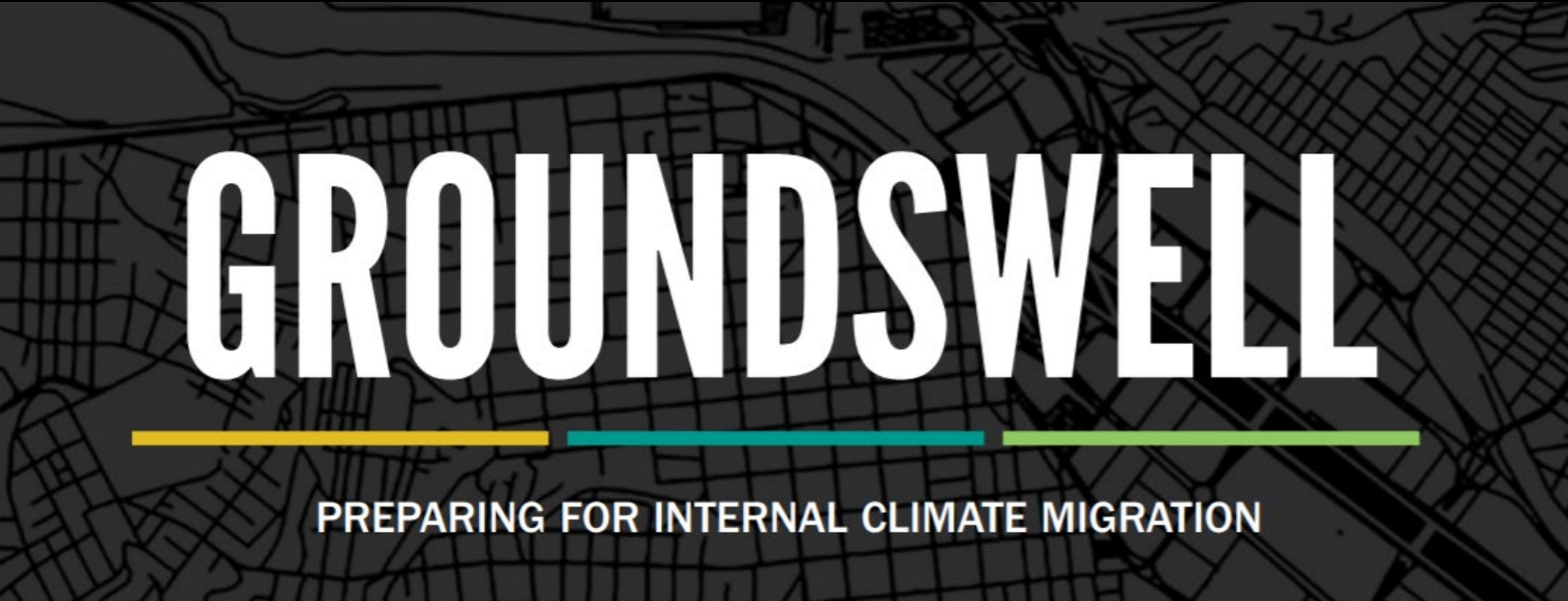


Macro

Meso

Micro

Projections Challenging



GROUNDSWELL

PREPARING FOR INTERNAL CLIMATE MIGRATION

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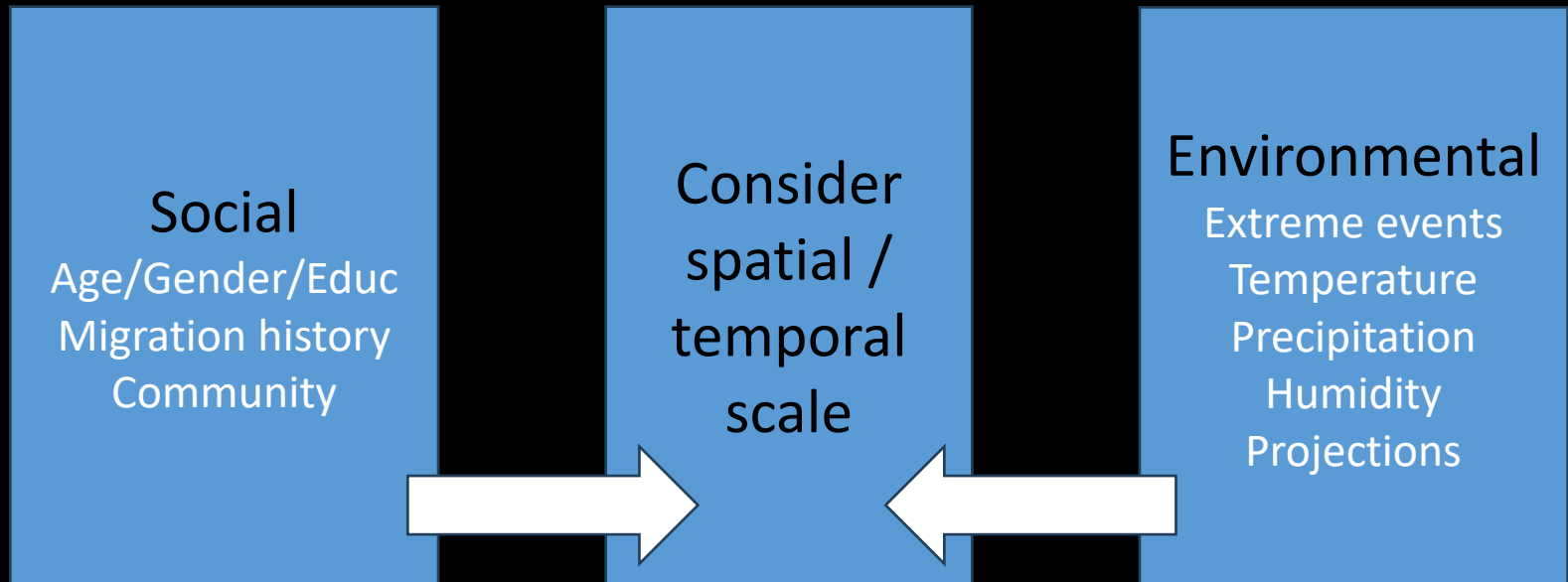


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Data integration



1) Population censuses

- Aims for full coverage, regularity

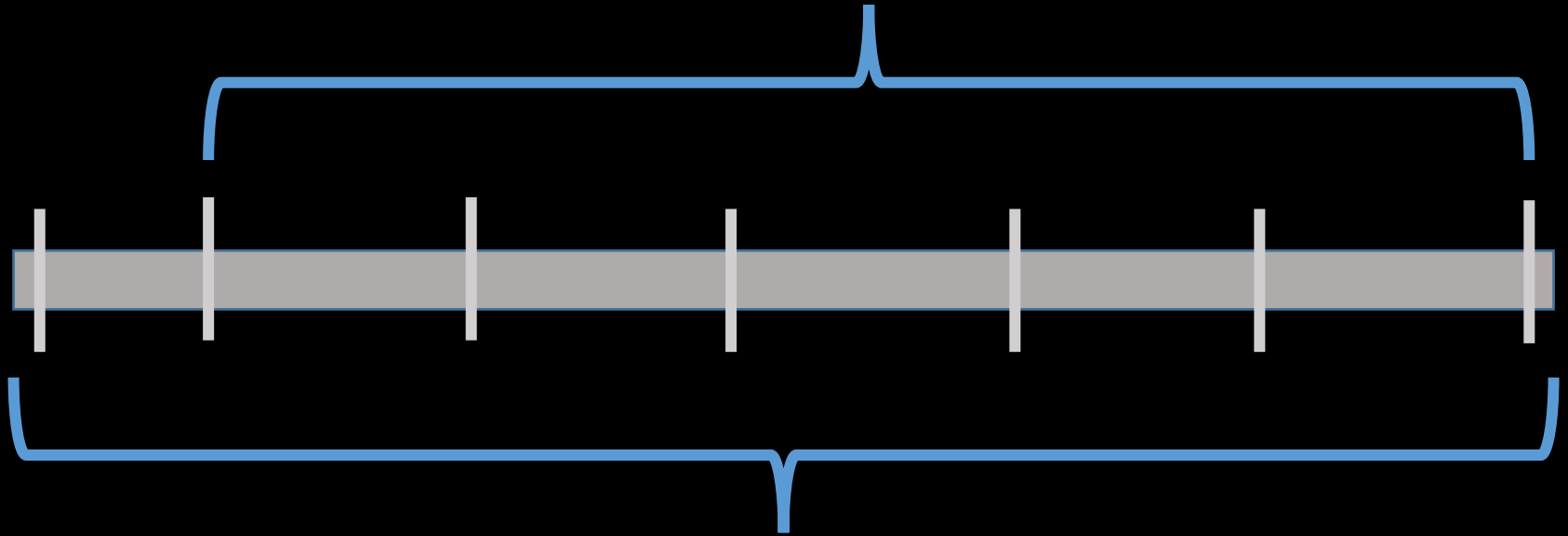
Climate Migration at the Height and End of the Great Mexican Emigration Era

FERNANDO RIOSMENA

RAPHAEL NAWROTZKI

LORI HUNTER

Migration, 5 year window



Precipitation and temperature
(% months)

2) Surveys

AJS 2020

Climate Change and Migration: New Insights from a Dynamic Model of Out-Migration and Return Migration¹

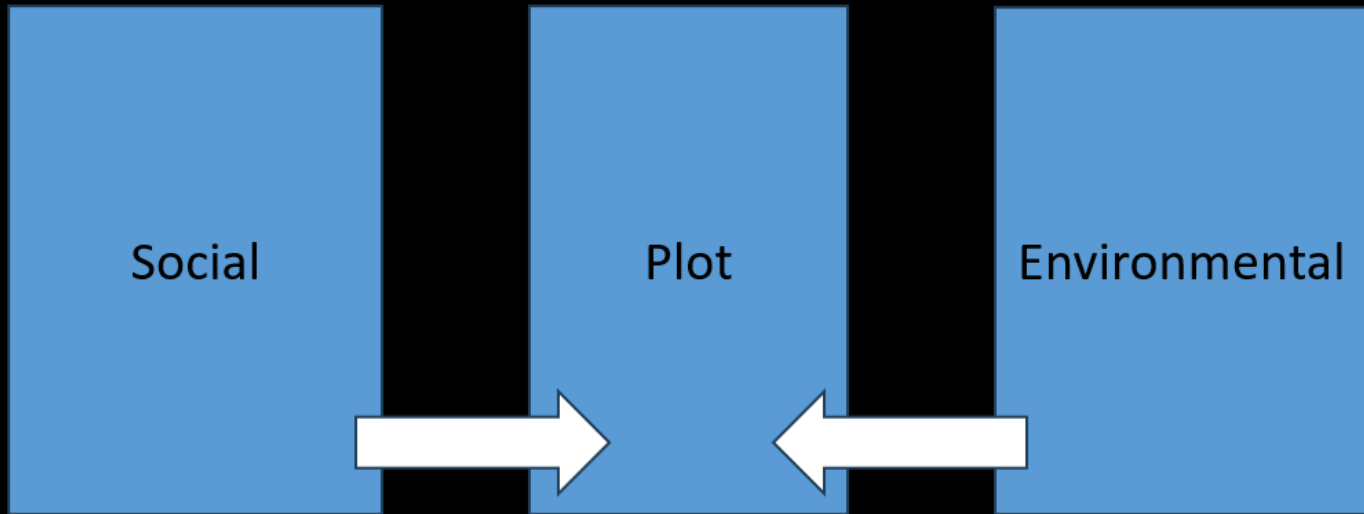
Barbara Entwisle
University of North Carolina at Chapel Hill

Nathalie Williams
University of Washington

Ashton Verdery
Pennsylvania State University



FIG. 1.—Location of study site





Substantial research with surveys

Who are the climate migrants and where do they go? Evidence from rural India[☆]

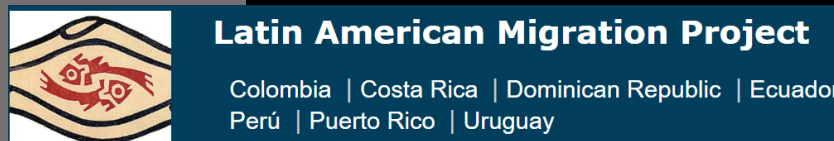
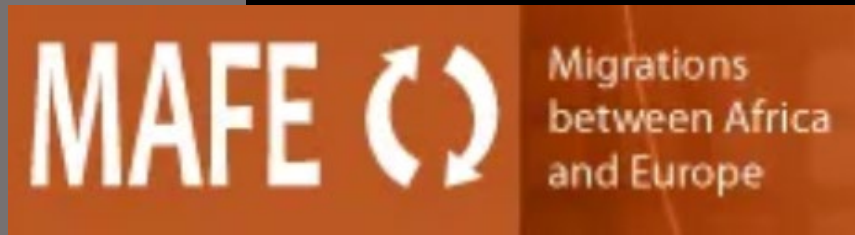
Barbora Sedova^{a,b,*}, Matthias Kalkuhl^{a,b}

World Development 2020

Temporary migration and climate variation in eastern Africa

Valerie Mueller^{a,b}, Glenn Sheriff^{c,*}, Xiaoya Dou^d, Clark Gray^e

World Development 2021



Ecological analysis

- Spatial unit
 - Counties, grid cells, regions, countries

Migration induced by sea-level rise could reshape the US population landscape

[Mathew E. Hauer](#) 

[Nature Climate Change](#) **7**, 321–325 (2017) | [Cite this article](#)

What we know

- **Environmental pressures come in many forms**
- **Environmental influences intertwine with economic, cultural, and other factors to shape migration (e.g. Honduras: Reichman 2022)**
- **In rural households, migration is only one among many adaptive livelihood strategies (West Africa: Teye and Nikoi 2022)**
- **In some areas, dry spells and regions yield higher outmigration (Bangladesh: Carrico and Donato 2019)**
- **But less “natural capital” can bring also more outmigration**
- **Much environmentally-induced migration is internal (e.g., Ecuador: Clark and Bilsborrow 2013)**
- **Social capital important (e.g., Bangladesh: Carrico and Donato 2019)**



Outline

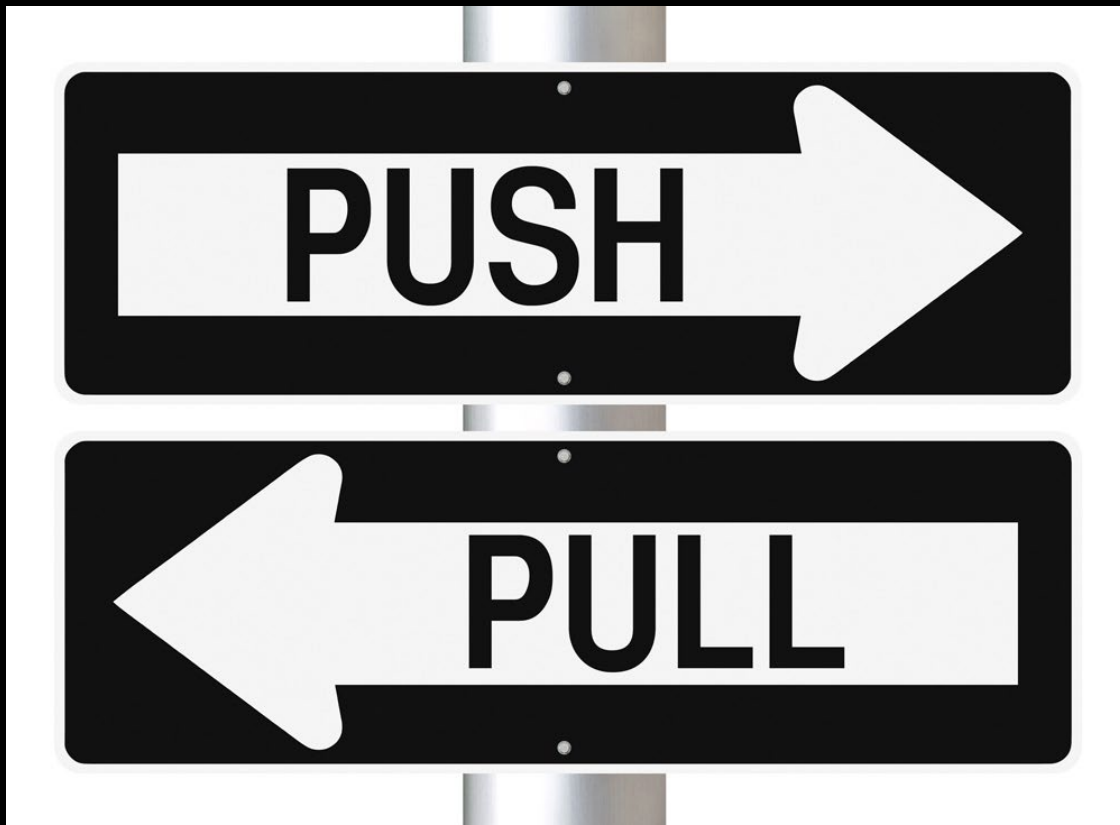
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Agency

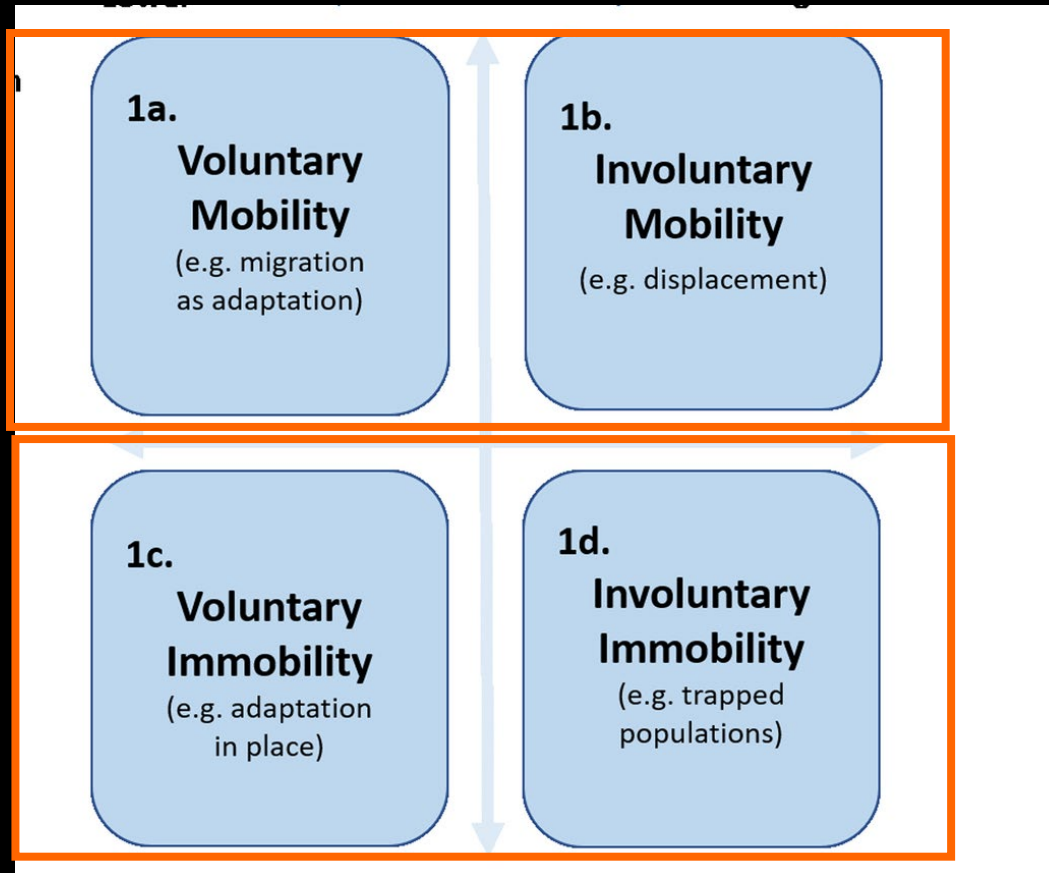


Displacement

Amenity-seeking

Livelihood diversification

Also immobility!



Hunter et al. 2021

- Qualitative insight
- Oral histories

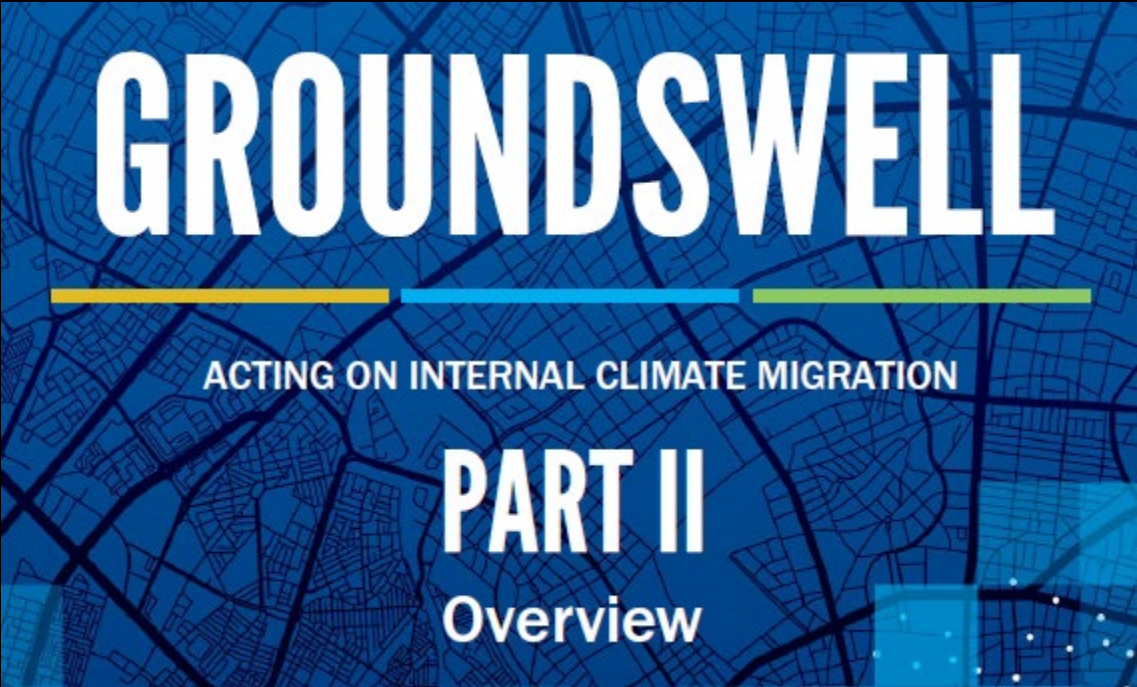
The experiences and perceptions of farmers about the impacts of climate change and variability on crop production: a review

Sikha Karki ^a, Paul Burton ^b and Brendan Mackey ^c

Climate and Development 2020



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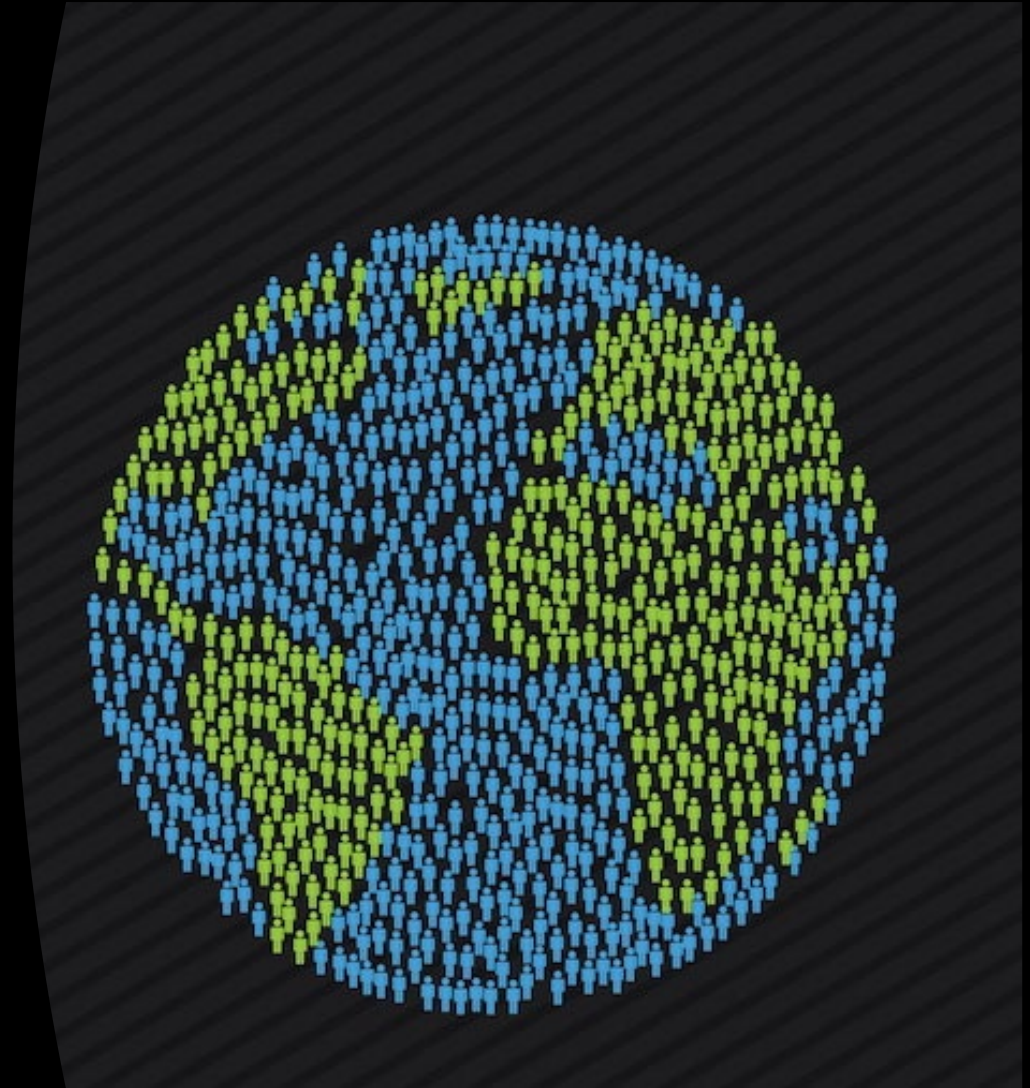
ACTING ON INTERNAL CLIMATE MIGRATION

PART II

Overview

Social Data Needs

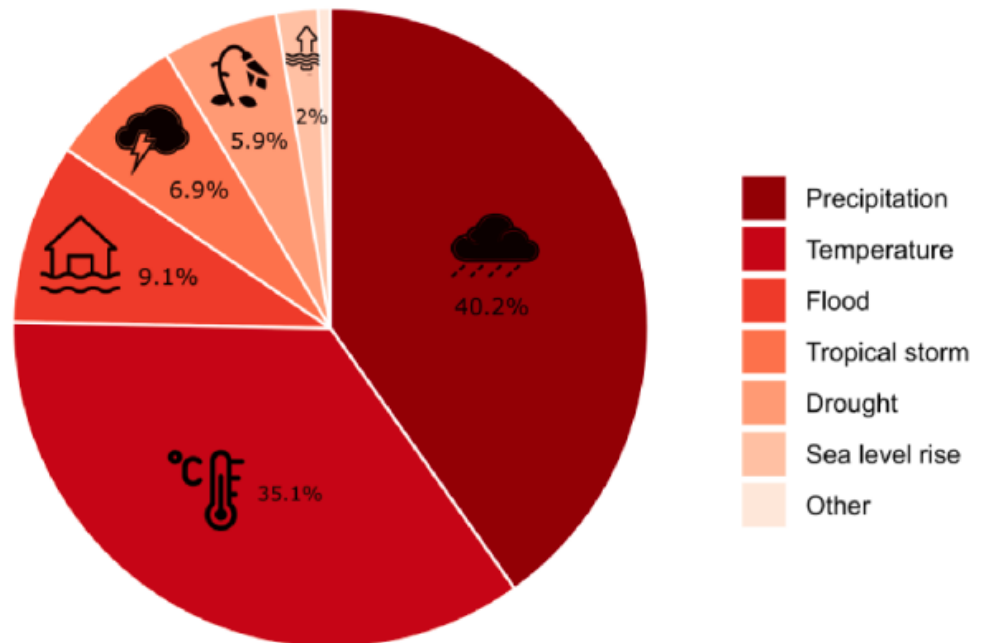
- Access to geographic codes
- Larger sample sizes
- Standardization of some measures
 - Migration: space and time
- Follow-up, including in destinations, panels
- Other livelihood options
- Qualitative insight



Environmental data needs

- Accessible measures with flexible scaling
 - Spatial & temporal
- Important thresholds for drivers & impacts
 - mechanisms
 - crops; ecological services; health
- Consideration of uncertainty
- Education

B. Different climate hazards considered



Hoffmann et al. 2021

Data Needs

- What do YOU need from migration research community ?
- Data poverty ?



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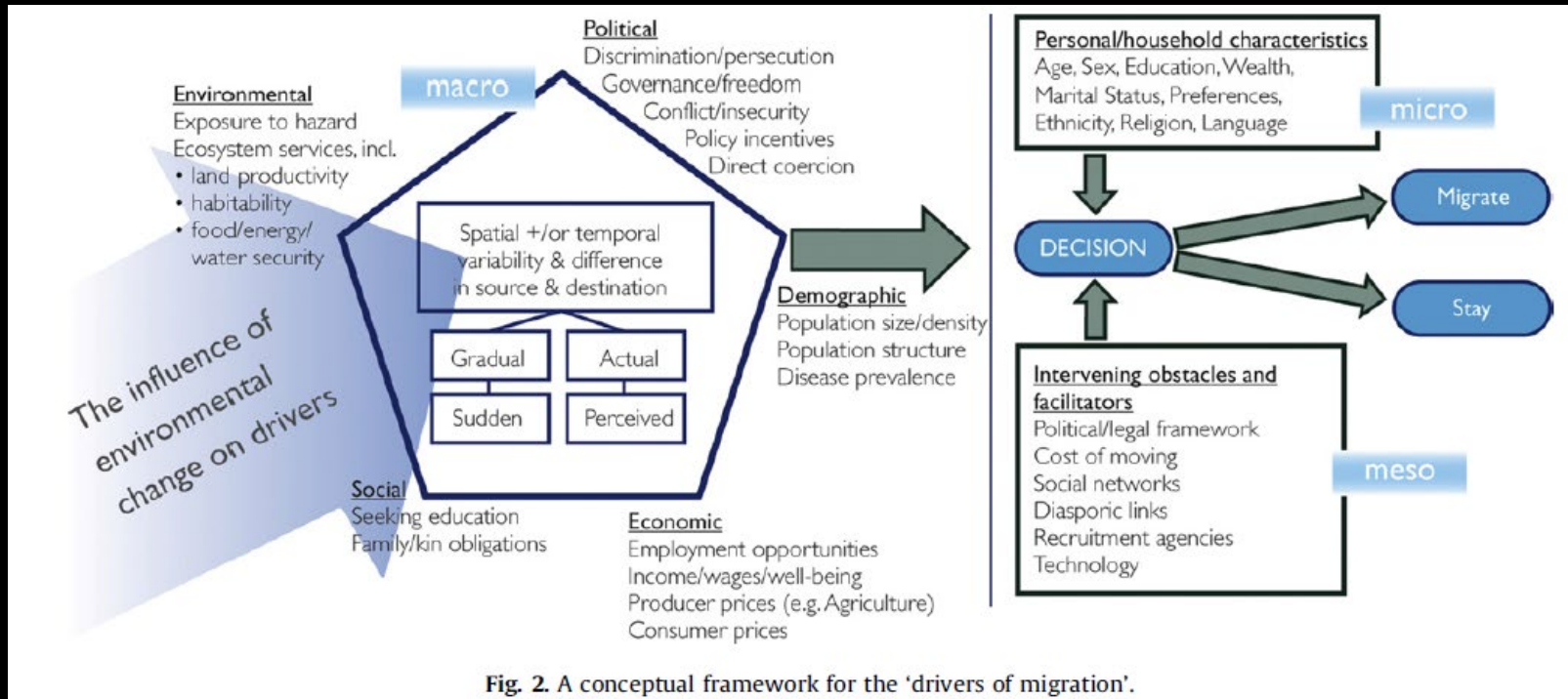
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Conclusion

Why challenging to project “climate migrants”?



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