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Climate-related stressors and human mobility:

Insights from recent empirical work in the global South

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Outline of the presentation

• Part 1 – Introducing the academic debate

• Part 2 – Empirical research: The Rainfalls Project

• Part 3 – Post-Rainfalls work

Part 1 – Academic debate

Environmental factors in migration studies

• Many of the "founders" of migration studies (among them Ratzel, Semple, Ravenstein, Huntington and Kropotkin) have included environmental and climatic considerations among determinants of human mobility

• The natural environment has disappeared from the debate for most of the twentieth century

• The environment is now re-entering the migration debate, with climate change as a "threat multiplier"

Source: Piguet (2013)

Recent debate

•1990s and 2000s: from a conceptual debate (maximalists vs. minimalists) to a discursive one ("alarmist discourse" and "skeptics´ response")

• Migration as adaptation (Black et al., 2011) vs Preparing for resettlement associated with climate change (De Sherbinin et al., 2011)

• Post 2011: The emergence of a „pragmatic stance"

- • Maximizing benefits and minimizing risks associated with migration
- • Migration is always a complex process (no direct M/E causal relationship)
- • Most migration in vulnerable environments is and will be internal rather than international, with the notable exception of border areas (including mountains) and small states (particularly small island developing states);
- • "Trapped populations"

Climate change, environmental change and migration

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2011: The Foresight theoretical framework

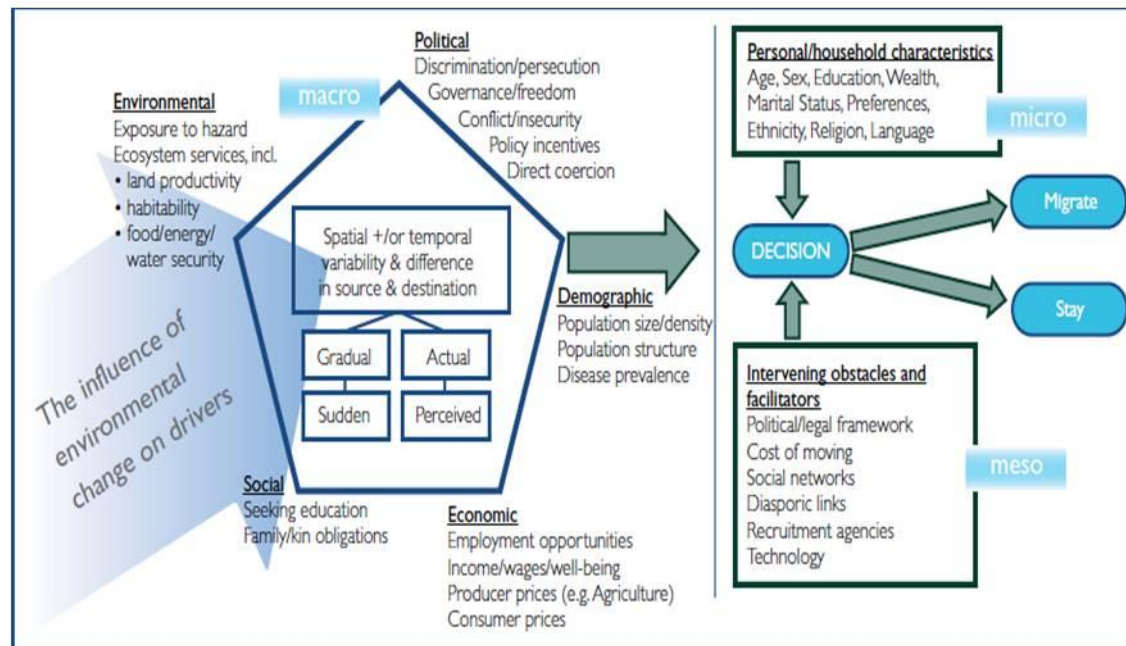Figure 5: Drivers of Migration and the Influence of Environmental Change

Figure from: Foresight: Migration and Global Environmental Change (2011) Final Project Report, The Government Office for Science, London, P. 12.

Source: Foresight (2011)

1

Objective: Migration as a risk management strategy in response to rainfall variability & food insecurity

Question: Under what circumstances do households use migration as a risk management strategy in the context of rainfall variability and food insecurity?

2

Objective: Potential future migration under different rainfall variability & food insecurity scenarios
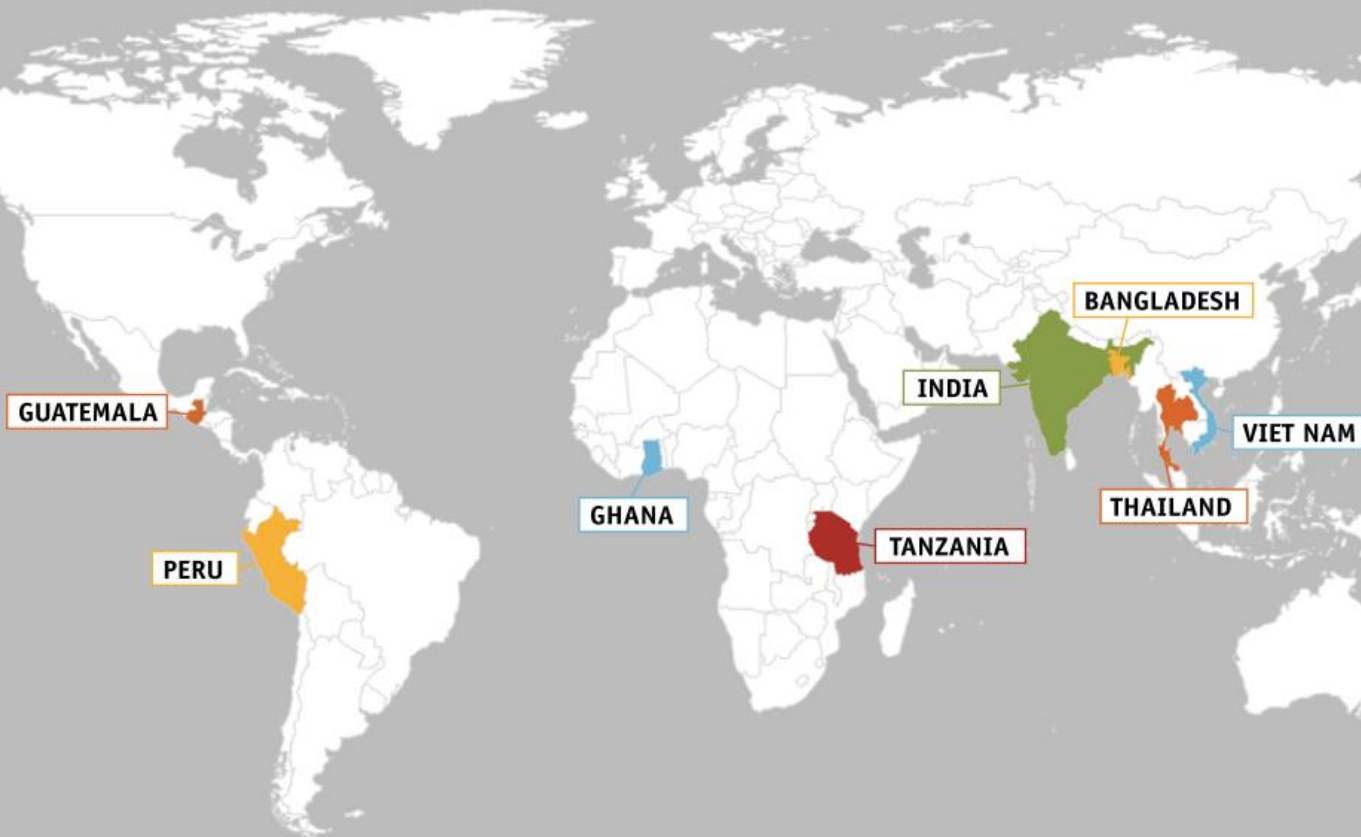
Question: Under what scenarios do rainfall variability and food security have the potential to become a significant driver of human mobility in particular regions of the world in the medium to long term?

3

Objective: Hotspots, policy alternatives & adaptation options

Question: In the context of climate change, what combination of policies can increase the likelihood that human mobility occurs in an orderly and planned way in hotspot areas of the world?

Methods & data triangulation

Overarching theme	PRA method	Household survey	Expert interviews
General spatial & temporal information	• Transect walk • Wealth ranking • Timeline	• Questions on assets, land • Events in community	• Local chief/dignitary • Local chief/dignitary
Food (in)security	• Seasonal calendar • Venn diagram on institutions	• Module on consumption, availability of food etc.	• Agricultural/Forestry extension officers • Local chief/dignitary
Migration	• Mobility map • Venn diagram on migration • Focus group discussions • Seasonal („migration") calendar	• Module on migration patterns, table on migrant information, perceptions, economic activities,...	• Migration researchers • Local chief/dignitary • Social welfare staff • Politicians
Rainfall variability	• Seasonal („rainfall") calendar • Timeline/Trend analysis	• Module on perceptions of change, impacts on livelihood; past & present situation	• Meteorological officer • District officer • Local teacher
Coping and adaptation	• Ranking of risks & coping strategies • Focus group discussions	• Module on coping and adaptation strategies	• Local teacher • Development agents/researchers

Source: Rademacher-Schulz 2012

Global results: 4 household profiles

Migration improves HH resilience	Migration used to survive, but not flourish	Migration erosive coping strategy	Migration not an option: trapped populations
• **Economy**: poor • **Adaptation options**: access to livelihoods options &assets (social, economic, political), • **Education**: Children have 3-5 years more education than parents • **Migrant**: early 20s, single; temporal migration • **Remittances**: education, livelihood diversification, health	• **Economy**: land scarce • **Adaptation options**: less access to assets & institutions for support • **Education**: Children have same education level as parents • **Migrant**: HH Head, mid 40s, migration in hunger season • **Remittances**: Success in obtaining food or money to buy food	• **Economy**: landless • **Adaptation options**: few adaptation options in situ, inability to diversify • **Education**: All HH members have low or no education / skill levels • **Migrant**: HH Head, mid 40s, migration in hunger season • **Remittances**: Partial success in obtaining food or money to buy food	• **Economy**: chronically food insecure, landless, Female -headed HH • **Adaptation options**: insufficient assets to adapt locally or through migration • **Education**: All HH members have low or no education / skill levels • **Migrant**: none • **Remittances**: none.

← **Resilience to climatic stressors**   **Vulnerability to climatic stressors** →

Source: Warner et Rawe (2013)

Part 3 – Post-Rainfalls Projects

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From Rainfalls to a third generation of empirical research

1. **New methodological approach** to enhance understanding of migration in vulnerable environments beyond single case studies

2. **Focus on impacts of migration** in vulnerable environments

3. **Deeper understanding of people´s attitudes** towards migration to better understand present migration and possible future migratory flows

A new methodological approach

- Creating a multidimensional livelihood vulnerability index

- Linking vulnerability, attitudes and subjective norms towards migration to migration patterns and outcomes

- Building on this understanding for a second generation of agent-based modeling of future migration

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Focus on impacts of migration: the MECLEP Project

The Migration, Environment and Climate Change: Evidence for Policy (MECLEP) Project (2014-2016) is EU-funded and implemented by IOM through a consortium with six research partners (including UNU-EHS)

The MECLEP research component aims at answering the following research question:

How does migration, displacement and relocation benefit or pose challenges for adaptation to environmental and climate change?

Deeper understanding of people´s attitudes: The PCCM project

• The Pacific Climate Change and Migration (PCCM) Project (2014-2016) is EU-funded and implemented by UNESCAP (lead agency), UNDP and ILO. Three countries covered: Kiribati, Nauru and Tuvalu.

• UNU and USP are contributing to the research component of the project that aims at answering the two following research questions:

1. **What is the relationship between household socio-economic characteristics, attitudes and subjective norms towards human mobility and migration outcomes in Kiribati, Nauru and Tuvalu?**

2. **Which migration patterns can be expected in Kiribati and Tuvalu from now to 2050 under different climatic, demographic, economic (and political) scenarios?**

Conclusions

• Focusing on **"vulnerable environments"**

• **Barriers to mobility and immobility**: need for conceptual and empirical clarity on "trapped populations"

• **Maximizing benefits and minimizing risks** of migration

• **Addressing legal protection gaps**: the Nansen Initiative

Thank you