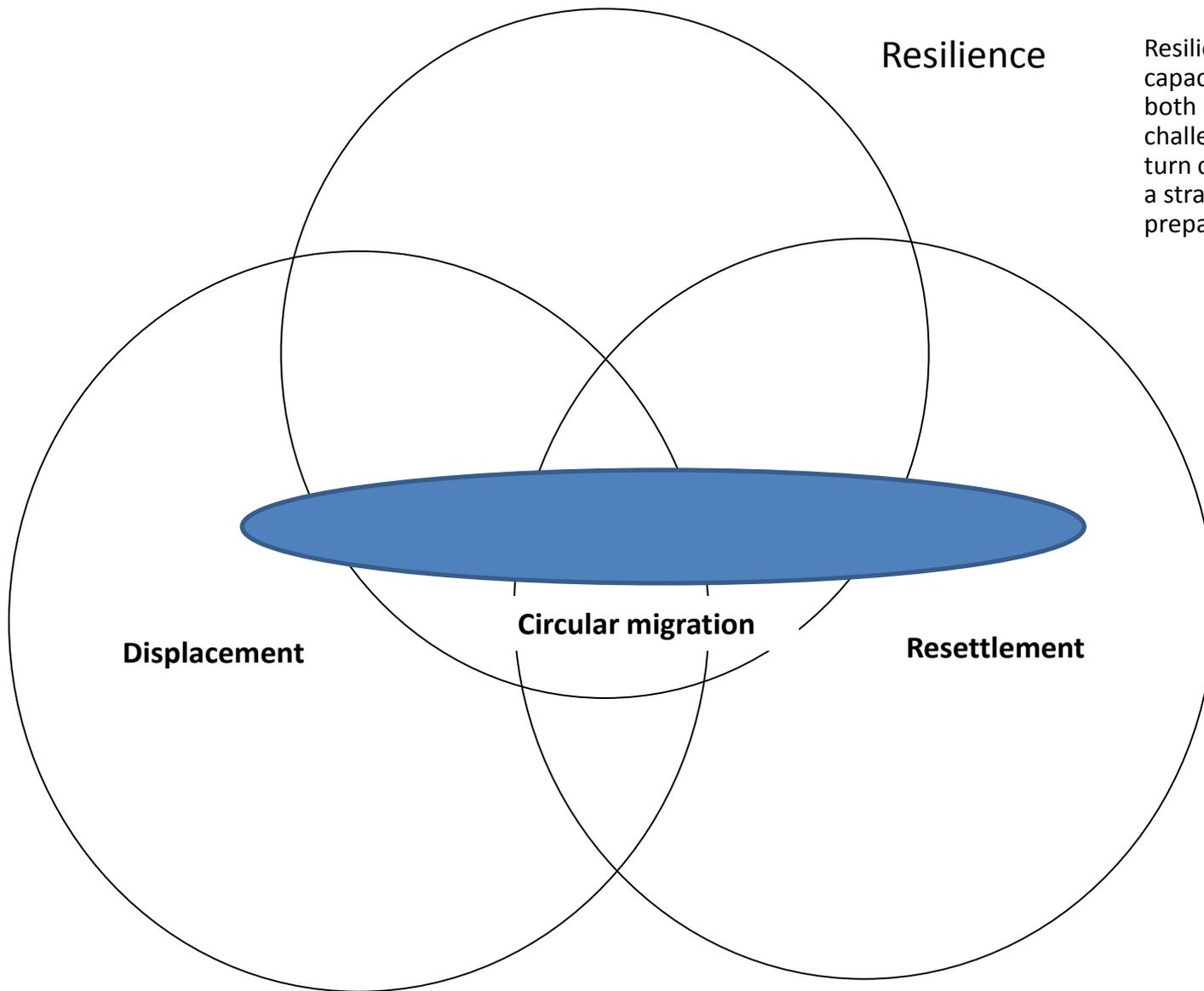


Maxmillan Martin, Soumyadeep Banerjee, Dominic Kniveton (University of Sussex) and Richard Black (SOAS)

MIGRATION AND ENVIRONMENTALLY RELATED HAZARDS AND DISASTERS: FROM CRISIS TO ADAPTATION

THE DUAL NATURE OF MIGRATION

- On one hand migration can be considered as a failure of adaptation and that it places migrants in locations that are unsafe and where they have poor access to services and protection.
- On the other hand migration can be seen as providing significant benefits by building adaptive capacity to deal with environmental hazards and disaster through:
 - livelihoods diversification (e.g. income, sector, and geographic diversifications);
 - increasing household income;
 - increasing access to information, the acquisition of new knowledge and other resources;
- The reality is that it can be both



Resilience

Resilient systems have at their core a capacity to anticipate and manage both known and unknown risks and challenges requiring flexibility which in turn can be achieved through pursuing a strategy of diversification and preparedness

Displacement

Circular migration

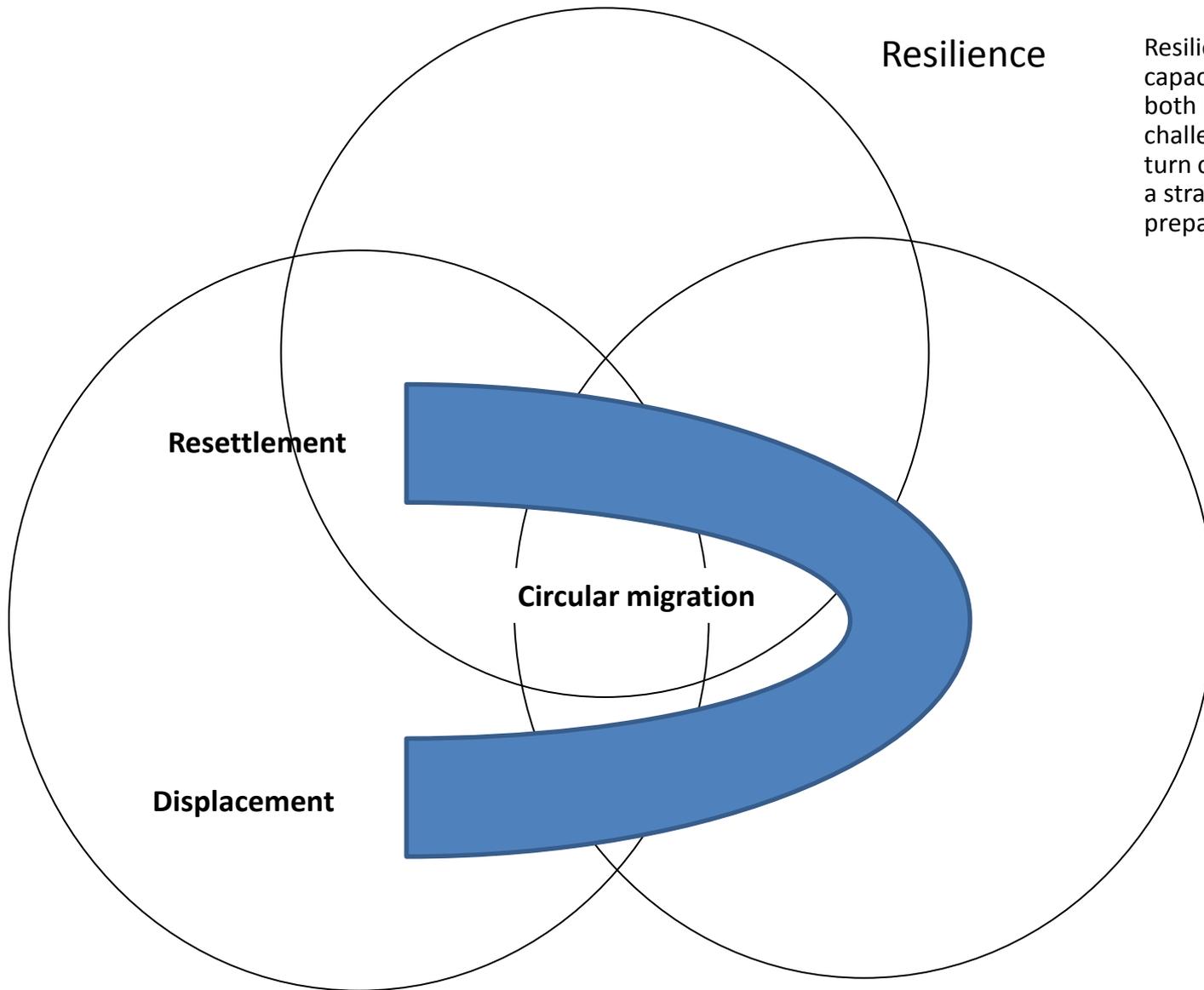
Resettlement

Vulnerability

The characteristics and circumstances of a community, system or asset that make it susceptible to the damaging effects of a hazard

Adaptation

Adjustments in natural or human systems in response to actual or expected climatic stimuli or their effects, which moderate harm or exploits beneficial opportunities



Resilience

Resilient systems have at their core a capacity to anticipate and manage both known and unknown risks and challenges requiring flexibility which in turn can be achieved through pursuing a strategy of diversification and preparedness

Resettlement

Circular migration

Displacement

Vulnerability

Adaptation

The characteristics and circumstances of a community, system or asset that make it susceptible to the damaging effects of a hazard

Adjustments in natural or human systems in response to actual or expected climatic stimuli or their effects, which moderate harm or exploits beneficial opportunities

MIGRATION AS ADAPTATION?

- **Optimists** frame migration as a conduit of investment capital, knowledge and experience – migration as adaptation/development
- **Pessimists** consider migration as disrupting traditional village societies; creating non-productive remittance-dependent communities; weakening local economies; increasing dependency; inducing labour shortages in origin communities due to brain and brawn drain; and reinforcing inequality in origin communities – migration as a failure of adaptation/dependency
- **A pluralist perspective** – posits migration as a risk-sharing behaviour of the household to diversify resources and minimise income risks with remittances as an insurance.

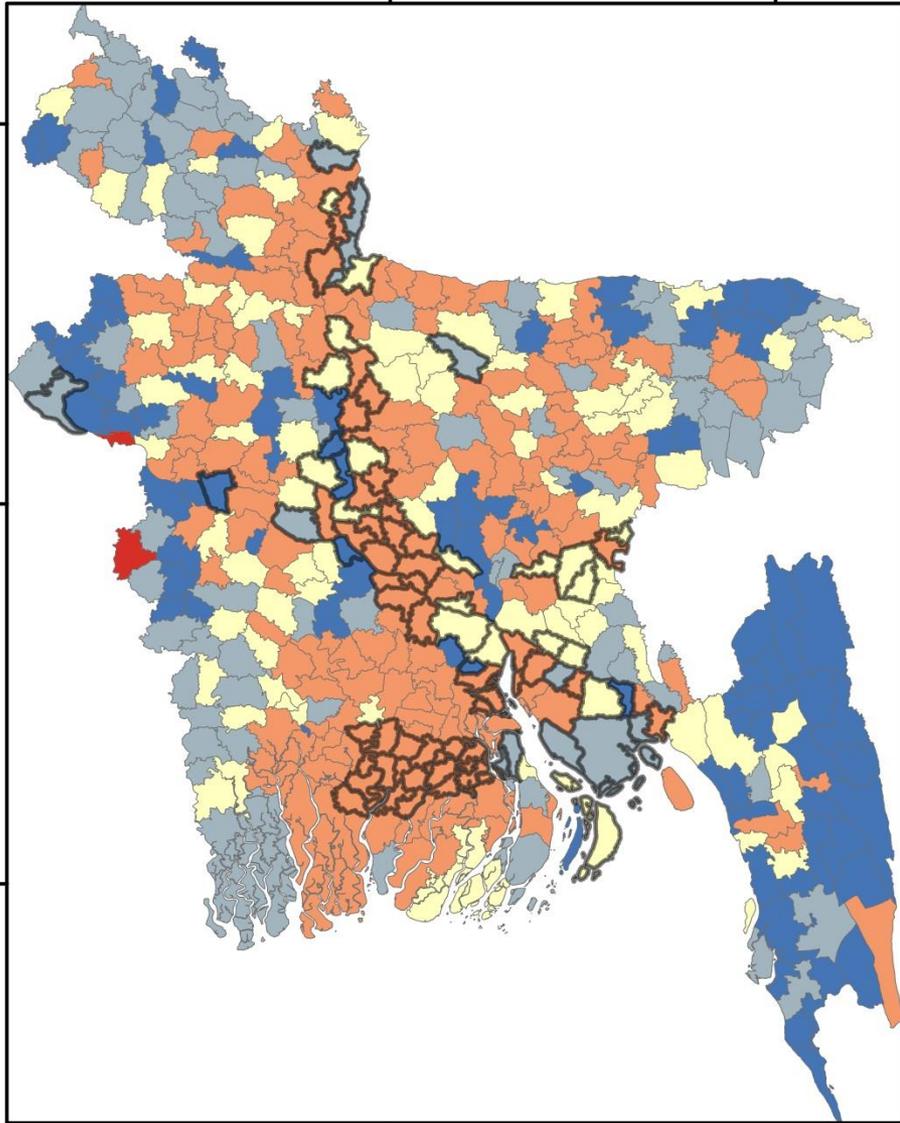
..

MIGRATION: A TALE OF TWO COUNTRIES IN SOUTH ASIA

MIGRATION IN THE CONTEXT OF CLIMATE THREATS IN BANGLADESH

90°E

92°E



Population Growth Rate 2001



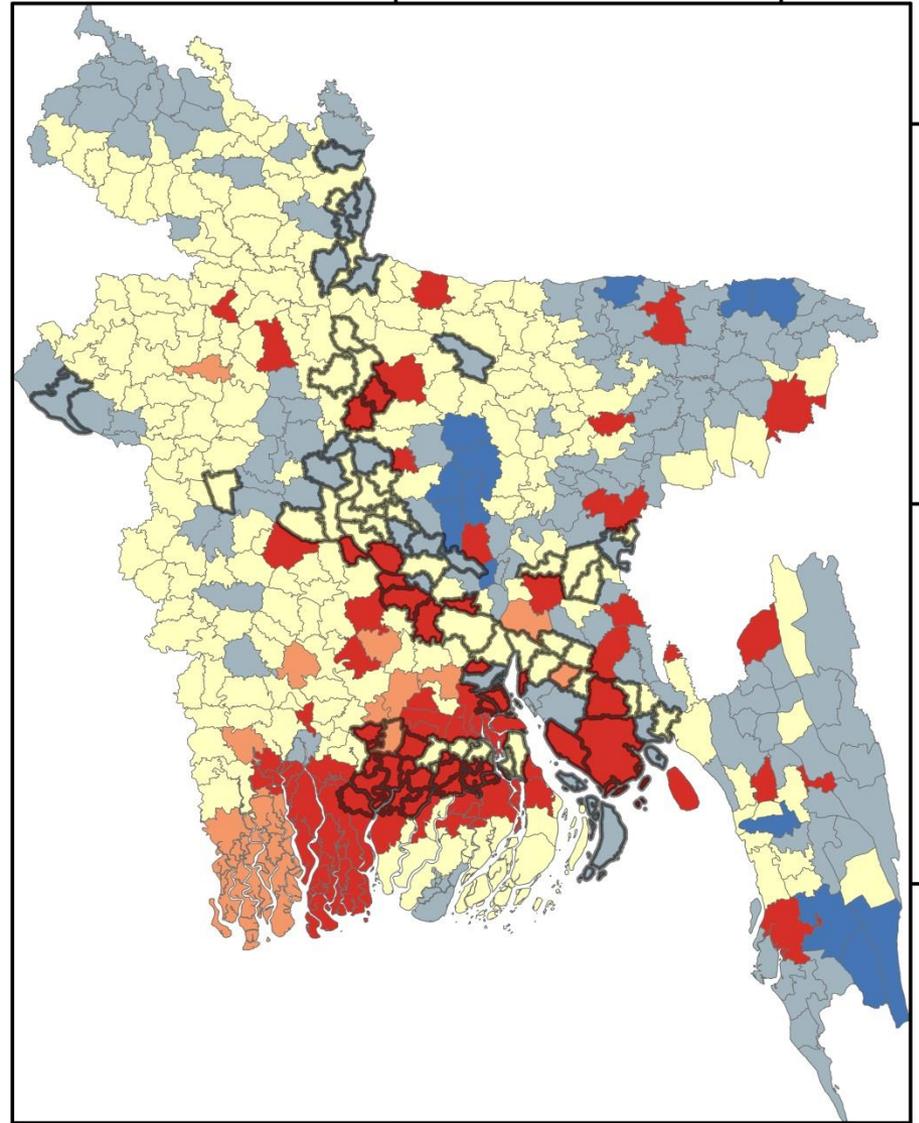
 River Bank Erosion

90°E

92°E

90°E

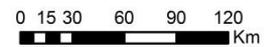
92°E



Population Growth Rate 2011



 River Bank Erosion

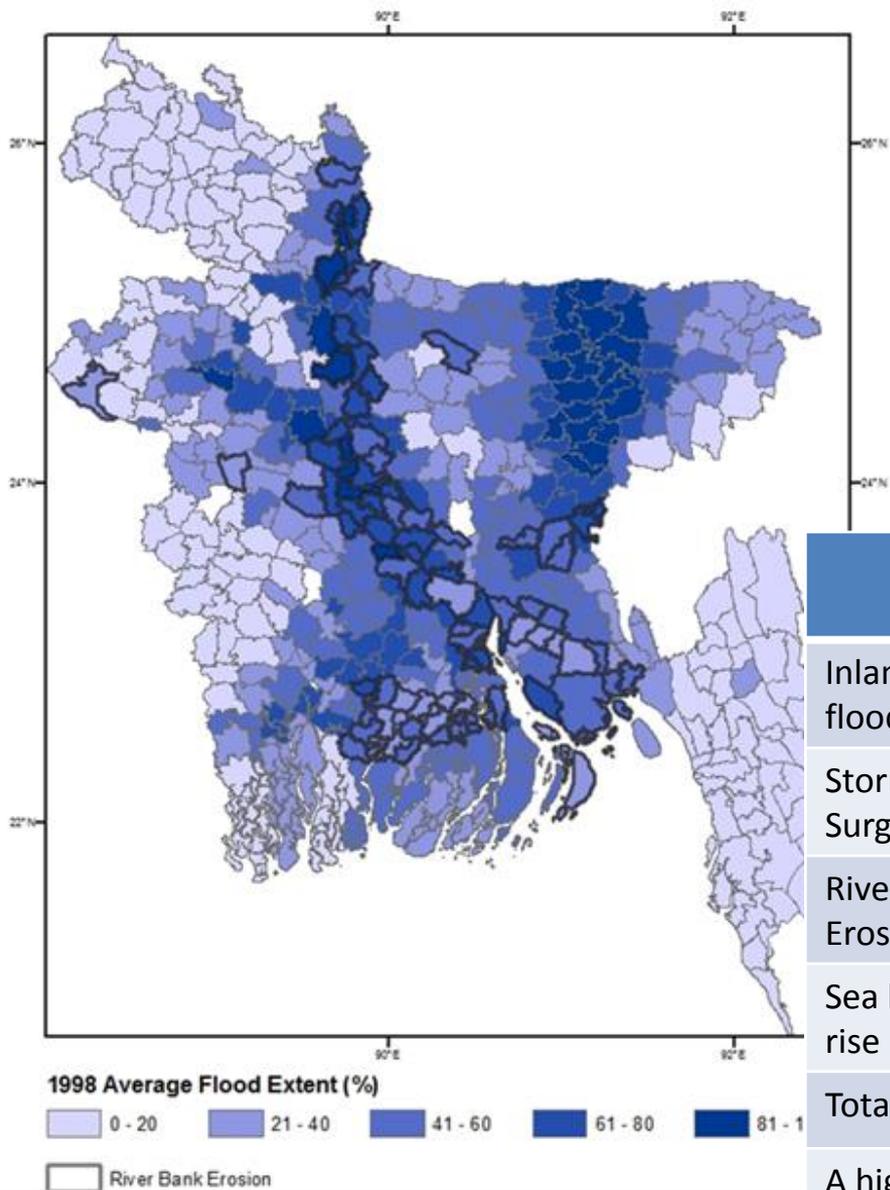


90°E

92°E

90°E

92°E



Flood extent for 1998 and upazilas prone to river bank erosion. Data from the Bangladesh Water Development Board.



	Migration rate p.a.	Pop 2010 ^b	Pop. 2050 ^b	Low (million)	High (million)
Inland flooding	0.36-0.67	21	22	3	6
Storm Surges	0.43-1.1	25	58	5	7 ^a
Riverbank Erosion	0.2-0.49	20	25	2	5
Sea level rise				6 ^b	8 ^b
Total				10	26

A higher migration rate applied to 3m inundation (Map on right from World Bank 2011: The Cost of Adapting to Extreme Weather Events in a Changing Climate BANGLADESH Development Series Paper No. 28. Washington, DC: World Bank)

Migration determinants from Bangladesh

- From census data upazilas affected by flooding, riverbank erosion and cyclones are experiencing reduced population growth
- However from life history analyses we see:
 - Poverty drives migration but environmental hazards and disasters can restrict people's ability to migrate.

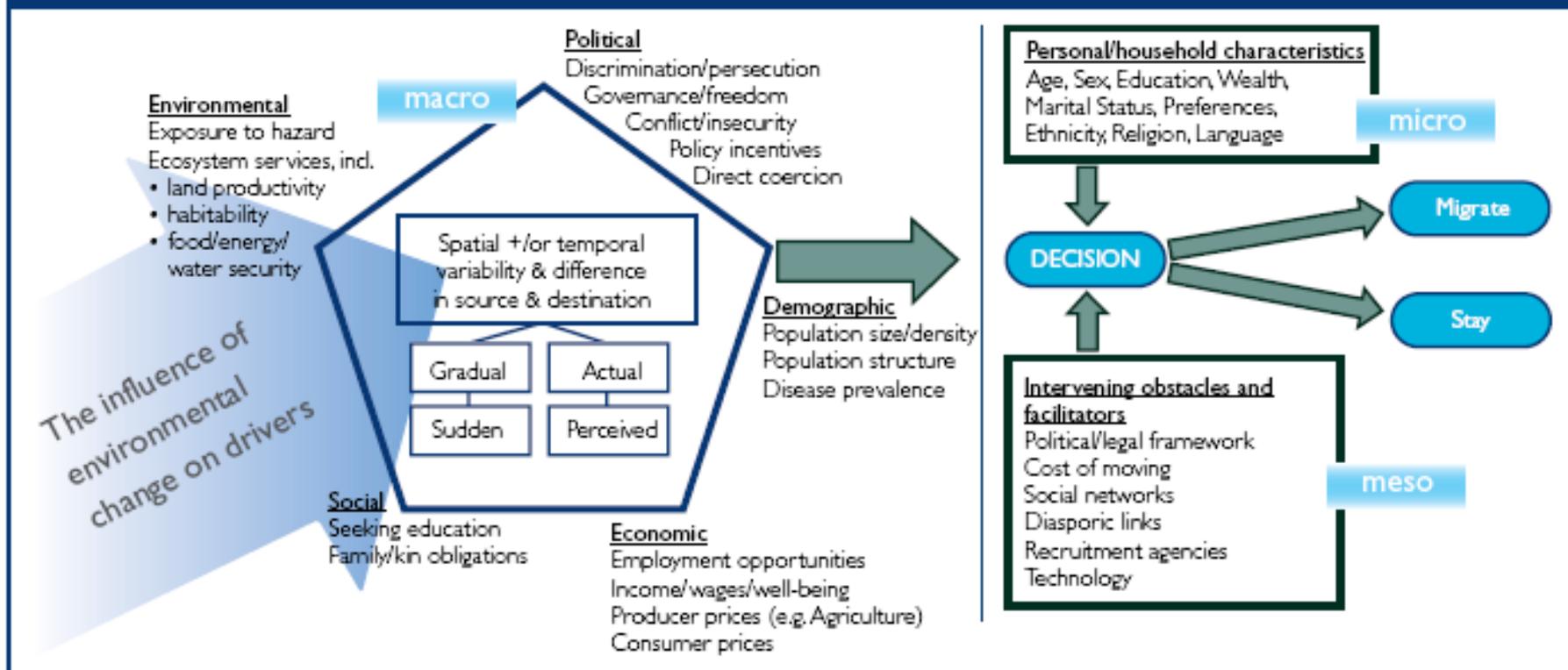
Take home message

- Some evidence of people leaving environmentally hazardous areas, but not necessarily those most affected by the hazards who can be trapped (unable to migrate).

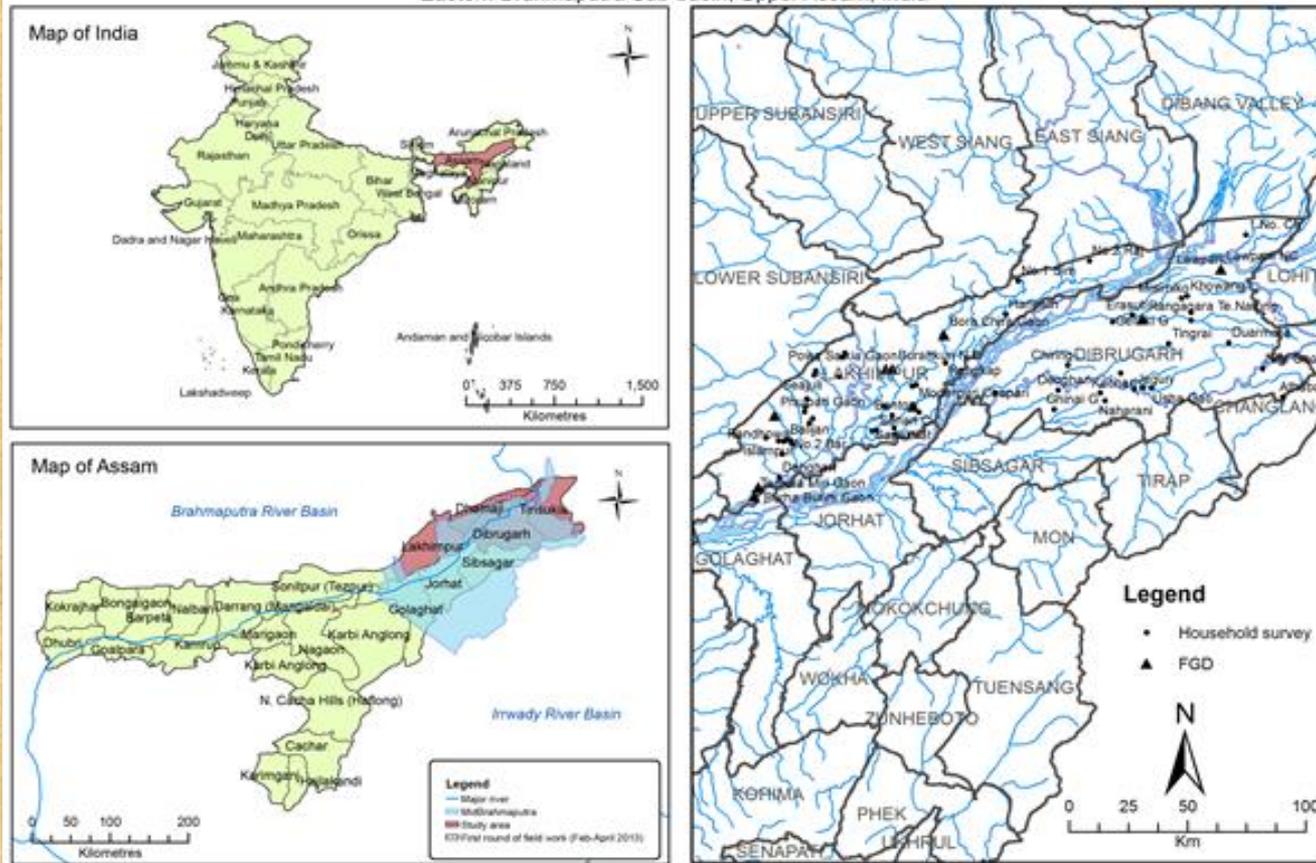
THE IMPACT OF LABOUR MIGRATION ON ADAPTIVE CAPACITY IN ASSAM, INDIA

Banerjee, Kniveton and Black 2015

Figure ES.1: The conceptual framework that has been used in this project, showing the 'drivers' of migration and the influence of environmental change²



Case Study on the Role of Circular Labour Migration and Remittances in Building Household Level Adaptive Capacity
 Eastern Brahmaputra Sub-basin, Upper Assam, India



In total 1156 migrating and non-migrating households in Upper Assam were surveyed in terms of the household characteristics, their migration status and capital/assets.

- The impact of migration (for whatever reason) on increasing the ability of households to adapt to environmental hazards and disasters is felt through increased: access to insurance; access to savings bank account; cropped area; access to rural employment guarantee scheme; and primary construction material of exterior walls of a dwelling.
- Yet the impact is lower among poorer households, suggesting that migration is less helpful in promoting adaptation amongst households that are the most vulnerable to environmental hazards and disasters.

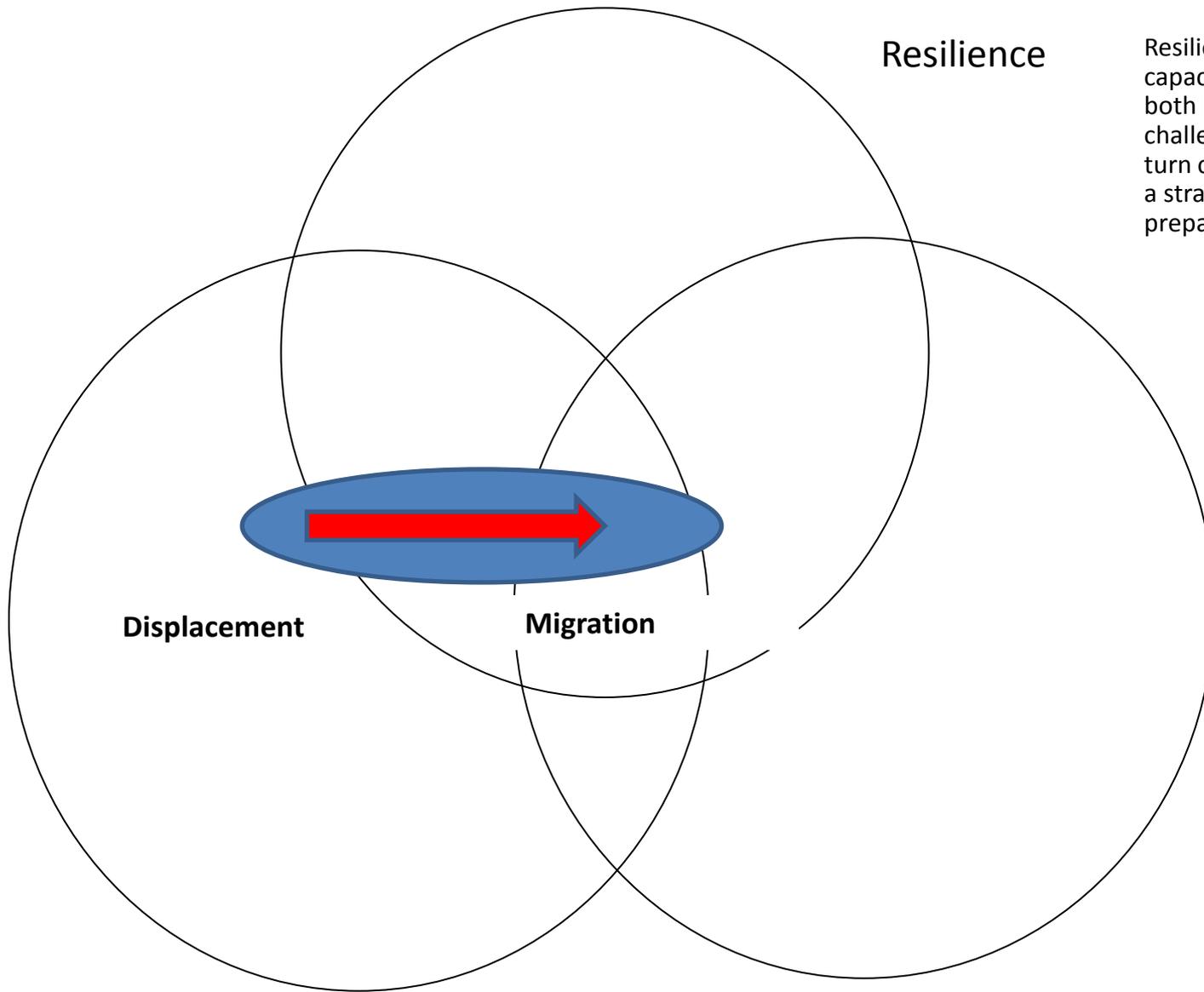
Take home message

- Migration can build adaptive capacity
- Policy interventions might reasonably aim to increase the level of remittances flowing back to migrant households through increasing skills training particularly among the poorer households in areas likely to be affected by the impacts of environmental change and variability.

- Complicated relationship between environmental hazards and disasters and migration?
- Forced displacement from disasters is rarely if ever beneficial to households or communities
- However if undertaken proactively (before a disaster) migration can potentially increase peoples ability to adapt to environmental hazards
- But people can be trapped in locations by the impact of environmental hazards and disasters

Maxmillan Martin (mm584@sussex.ac.uk)

Dom Kniveton (kafw@sussex.ac.uk)



Resilience

Resilient systems have at their core a capacity to anticipate and manage both known and unknown risks and challenges requiring flexibility which in turn can be achieved through pursuing a strategy of diversification and preparedness

Displacement

Migration

Vulnerability

The characteristics and circumstances of a community, system or asset that make it susceptible to the damaging effects of a hazard

Adaptation

Adjustments in natural or human systems in response to actual or expected climatic stimuli or their effects, which moderate harm or exploits beneficial opportunities