Seasonal Migration and Risk Aversion

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Motivation: Seasonal Famine

- Every year the Rangpur area of Bangladesh faces a "seasonal famine" know locally as Monga.
- Food insecurity caused by a lack of employment prior to the Aman harvest (Sep to Nov).
- 9.6 Million people in the area, 5.3 Million people below the poverty line.

The Puzzle

- The usual response is to provide relief aid in the form of food.
- But, a *predictable* famine is a puzzle to economists.
- Two obvious mitigation strategies:
  - Saving.
  - Seasonal Migration.
- We look at seasonal migration.

The Puzzle
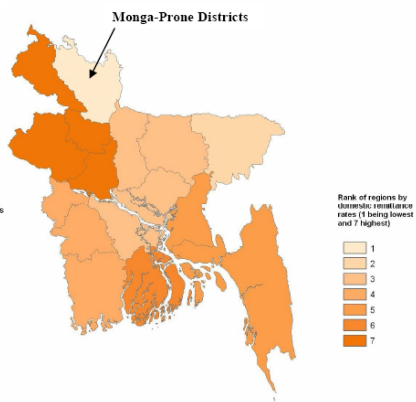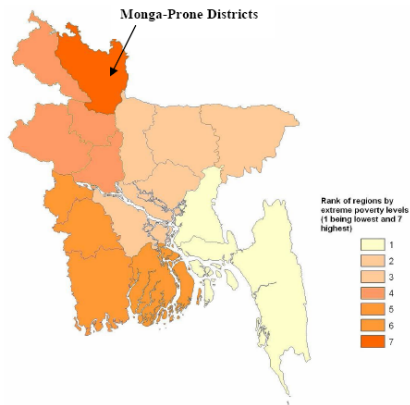
Constraints on Seasonal Migration

- A lack of seasonal migration could be due to one of two broad constraints:
    - A structural constraint – for some reason it does not pay for people from Rangpur to migrate; or
    - A behavioral constraint – it pays to migrate but people do not do it.
- It is very easy to design an experiment to test between these two.
- The possibility of a behavioral constraint is hopeful – it is potentially easier to remedy through policy.

Constraints on Seasonal Migration

- This paper asks two questions:
    1. Is seasonal migration profitable?
    2. If yes, why don't people engage in migration?
- The second question helps us to:
    - Design better policy.
   - Understand where we can expect similar impacts.

Experimental Design

- Experiment undertaken just before Monga 2008.
- 100 Villages in Lalmonirhat and Kurigram.
- Four treatments:
    - 16 control villages (304 hh);
    - 16 villages given information (304 hh);
    - 37 villages offered 600 Tk if they migrated (703 hh); and
    - 31 villages offered 600 Tk of credit if they migrated (589 hh).
- Sample:
    - Less than 50 decimals of land; and
    - Someone missed a meal during 2007 Monga season.

Is Migration Profitable?

Results: Migration Rate

2008 Migration Rate
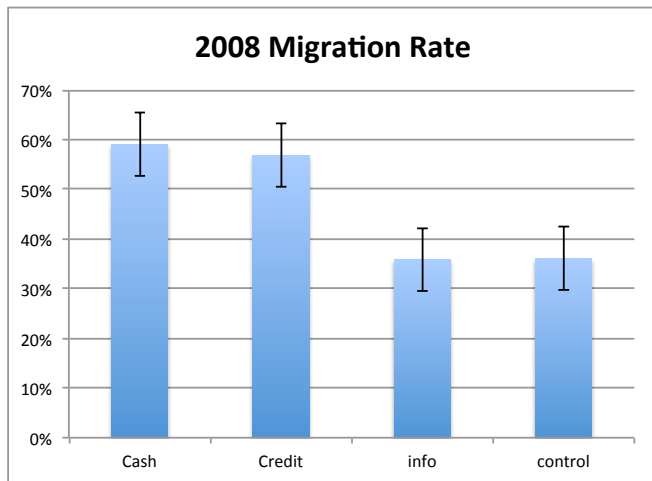
Results: Consumption (Impact on Induced Migrants)

Per Households member,:

- Expenditure increases by 355 Taka from 951 per month .
- Calories increase by 788 from 2060 per day.
- Protein calories increase by 16 from 45 per day.
- Education expenditure increases by 21 from 15 per month.

Results: The Migration Experience

- Total savings plus remittance is around $66 (4600 Taka)
- Total earnings during migration is around $121 or 100 Taka per day.
- Of those that work at the origin, total earnings is around 65 Taka per day.
  - But this is a very selected sample.

Results: Ongoing Migration
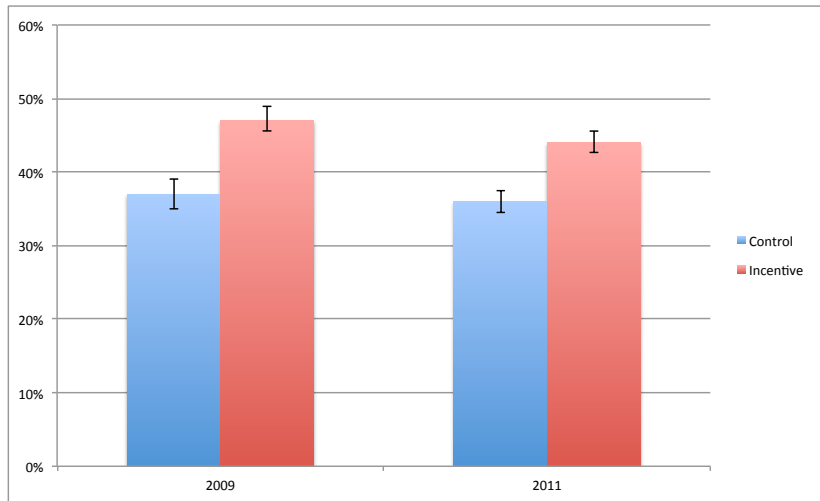
Takeaway Points

- We think the impacts are surprising.
- Large impact from a small intervention.
- Ongoing change to peoples lives.

What Constrains Migration?

Two Reasons To Understand Mechanisms

1. Helps to understand optimal policy design.
   - In this case some sort of microfinance seems to be optimal.
   - Credit has a very similar impact and is much less costly than an incentive.
   - But what features should the contract have?
2. Helps to understand the circumstances in which we may expect similar impacts.
   - Where will microfinance have positive impacts?
   - Motivation for a "where works" approach to understanding policy.

Policy Design 1: Response to Risk

- ▶ The impacts are hard to explain with a liquidity constraint.
    - ▶ Average year on year variation in *weekly* income is 325 Taka. Incentive is only 600 Taka.
    - ▶ The incentive has the largest effect on those who spend a high portion of their income on food. These are those most likely to be risk averse.
    - ▶ Incentive has the biggest impact on those that do not know someone in a destination area – this is the risk.
    - ▶ Credit provided some insurance – only 80% repaid.

Response to Risk: The Effect of Insurance

- To test that the behavior is driven by risk we returned in 2011 to provide an insurance contract (for the Boro lean season).
- Insurance gives 800 Taka conditional on migration and repayment depends on rainfall levels in Bogra (a popular destination).
- Insurance induced a 15.7% increase in migration, relative to a 17.5% increase for credit in the same year.
- Most important: the insurance acts like insurance:
    - Non-Farmers were more affected by the insurance than farmers (25% versus 10%).
    - Non-farmers that had expressed an interest in going to Bogra were most strongly affected: 53% increase.

Response to Risk Implication for Microfinance

- A microcredit contract will only mitigate risk if it is limited liability.

- More study needed to understand if credit contracts can effectively provide this benefit.

- Insurance contracts possible, but often hard to sell.

Policy Design 2: Flexibility

- Most micro-credit contracts will not allow seasonal migration:
    - Aimed at business loans. Have to have a business.
    - Repayment schedule does not allow for a 4 month migration.

  Another call for more flexibiltiy in microfinance.

Policy Design 3: Conditionality

- All our initial interventions were conditional on migration.
- In 2011 we also offered unconditional credit:
  - We see only a 7% increase in migration, relative to 17% for conditional credit.
- Perhaps suggests the need to "nudge" people.

Where Works 1: Poverty

- Rangpur is the poorest part of Bangladesh.
- We also find strongest effects on those that are close to subsistence.
- This is also one of the stylized facts of international migration.
  - Extreme risk aversion among the very poor can explain this.
  - Suggests similar impacts where there is again a combination of people living near subsistence and a potentially profitable risky activity.

Where Works 2: Learning

- ▶ Ongoing effects were driven by people making connections at a particular destination and learning about the market.
- ▶ We randomly assigned migrants to different locations, and we show that these are sticky.
- ▶ What is important here is that "learning" is required, but that the poor and risk averse cannot learn from others in their community.

Conclusion and Interpretation

- Some unanswered questions:
  - Why not save for this and what savings products would allow migration?
  - Why is conditionality so important ... is migration very costly or is this a mistake?
  - If non-migration is a mistake, what policies are most effective in combatting a mistake?