

# Encouraging Seasonal Migration to Mitigate the Consequences of a Seasonal Famine in Rural Bangladesh

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In Bangladesh, during the annual seasonal famine, incomes decrease by 50-60% and expenditures on food drop by 10-25%. The government has instituted food or cash-for-work programs, while NGOs attempt to enhance income and employment mostly through credit and to a lesser extent through job training and marketing initiatives. However, there is a need for long term solutions rather than consumption-smoothing interventions.

## Key Messages:

**Seasonal migration provides a long-run solution to a lack of income diversity and employment opportunities in sending areas, and an employment surplus in destination cities.**

**A small incentive can encourage risk-averse households to migrate, and the returns to migration are very large**

**Insurance products would help incentivise out-migration**

## Summary

Seasonal migration can successfully mitigate the effects of the pre-harvest period from September to November that is plagued by seasonal poverty and famine, providing a long-run solution to a lack of income diversity and employment opportunities in sending areas, and an employment surplus in destination cities.

Despite the positive expected returns of out-migration, many households fail to take advantage because the cost of failure (spending money to migrate but not finding employment while your family is under the threat of famine) is devastating. Policies allowing people to take advantage of this investment must counter this constraint. A migration support program must insure households against failure.

A limited-liability migration credit scheme, which has built-in insurance against the possibility of low labour demand at the destination, would encourage people to out-migrate during the famine.

## Policy Brief

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## Policy Motivation

While Bangladesh is on target to achieve the primary United Nations Millennium Development Goal of halving its 2000 level of extreme poverty by the year 2015, certain regions of the country lag behind in economic opportunities and outcomes. A particular problem concerns the pre-harvest 'lean' or 'hungry' seasons seen throughout South Asia and Sub-Saharan Africa, where imperfect consumption-smoothing forces some households into poverty during certain parts of the year.

During this period of annual famine, known as 'Monga', incomes decrease by 50-60% and expenditures on food drop by 10-25%. The government of Bangladesh and several NGOs have implemented programs that attempt to provide income and employment opportunities in the local labour markets. The government has instituted food or cash-for-work programs, while NGOs attempt to enhance income and employment mostly through credit, and to a lesser extent through job training and marketing initiatives. The key goal is to institute long-run solutions as opposed to consumption smoothing solutions that only affected households in the short-run.

## Project Summary

Our research draws on the observations that there is greater inter-regional variation in incomes than inter-seasonal, and that seasonal out-migration from the greater Rangpur region is puzzlingly low relative to the rest of the country. Can seasonal migration be a cost-effective policy response to mitigate the adverse effects of seasonal famine?

Inspired by the observations that nearby urban areas offer better wage and employment opportunities during the lean season, we provided small grant and loan incentives (of \$8.50) in 100 study villages to encourage people to seasonally migrate out in search of employment. The random assignment of incentives allowed us to generate among the first experimental estimates of the effects of migration, and internal migration in particular.

## Project Findings

Our evaluation shows that seasonal migration can successfully mitigate the effects of the pre-harvest period from September to November, plagued by seasonal poverty and famine. During this period in greater Rangpur, there are fewer job opportunities, lower wages, and higher prices of grain. Out-migration is a practical and rational strategy to cope with seasonal downturn and natural shocks and appears to have large causal benefits for Monga-prone households.

With the provision of incentives, the migration rate increased from 34% in control villages to 57% in treatment villages receiving the \$6 - \$8 cash/credit incentive. Total expenditures, food expenditures, and caloric intake for the families of migrants increase by 30-35%. Caloric intake increased by 700 calories per person per day during the lean season. Most strikingly, the migration rate in treatment areas continues to be significantly higher (47% to 35%) even after inducement is removed.

With such significant positive impacts, it is puzzling why households fail to take advantage of this apparently attractive investment. A few different models could have explained these findings, but the data are most consistent with a rational model in which people are uncertain about their own return to migration, and do not experiment for fear of a devastating outcome. In this migration poverty trap, even if the chance of failure is low, the potential cost of that failure may be so large (e.g. if it puts the family under threat of famine below subsistence) that it dominates household decision-making.

Seasonal migration provides a long-run solution to a lack of income diversity and employment opportunities in sending areas, and an employment surplus in destination cities. A small incentive can thus encourage risk-averse households to migrate, and the returns to migration are very large. Policies to allow people to take advantage of this profitable investment as a method to mitigate the detrimental effects of famine must counter this key constraint to seasonal migration. A migration support program must insure households against the failure that they would perceive as devastating. A limited-liability migration credit scheme, which has built-in insurance against the possibility that labour demand at the destination proves to be low, would achieve this objective.

## Implementation

In further research we hope to more precisely identify constraints to migration. If there is a migration poverty trap stemming from risky experimentation, then an insurance program (e.g. credit with limited liability) is likely to be welfare-enhancing, and can be an effective policy response against the threat of localized seasonal famines. In one project in Rangpur, we will test the take-up of a migration credit program against an innovative insurance scheme, where the credit contract has a built-in insurance scheme to protect migrants against employment risk at the destination. Providing potential migrants with job leads that reduce the employment risk at the destination may be another useful strategy. More broadly, providing small grants or credit that enable households to search for jobs, and leads to a better spatial and seasonal matching between potential employers and employees may be a great use of the microcredit concept that

has traditionally been more focused on creating new entrepreneurs and new businesses. To test this, we will link workers from the eastern Indian state of Bihar to jobs at tea plantations in the southern Indian state of Tamil Nadu. Much like the seasonal migration program studied by Gibson and McKenzie, we plan to implement a job matching program with workers from Bihar where the people and economy have been historically dependent on extremely risky permanent and temporary out-migration. This project aims to work with IGC, IGC partners in Patna (ADRI), and Tea Estates India Limited (TEIL).

One note of caution is that scaling up such a migration program requires careful consideration of potential general equilibrium effects. Sending a large number of migrants to one destination can result in the labour market at the destination becoming saturated.

## Further Readings

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