Evaluation of the Welfare Impacts of a Livestock Transfer Program in Nepal

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- 1 Background and motivation
- 2 Quantitative evaluation
- 3 Study site and sampling
- Qualitative evaluation

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Asset dynamics and social protection

Poverty is a dynamic process, not a permanent state

- Assets are key to poverty dynamics:
 - Determine who can invest and save
 - Determine who can endure a negative shock
 - Determine who can generate sustainable income
- Households and communities without assets can get stuck in poverty traps
 - Little incentive or ability to invest or save
 - Easily knocked down by shocks
 - Lack capacity to aspire, hope

Qualitative evaluation

Livestock transfers

Merry Christmas!

To: The Shopping Mama From: Kate

In your honor, a gift has been made to Heifer International to help struggling people around the world become self-reliant for food and income.

May this gift bring you joy as it brings hope to a family in need.



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Livestock transfers

Asset transfer programs (esp. livestock) are increasingly popular tool to enable households to move out of out of poverty

- Can improve nutritional and economic outcomes
- Usually target women
 - To improve status of women in the household and community
 - To better achieve nutrition and educational outcomes
- Heifer International is the global leader in livestock transfers
- Claims to have enabled more than 20 million families to transition out of poverty in its 70-year existence



MSU, UGA, Nepa, and IFPRI

Goat Transfers in Nepal

The Heifer Model: "Passing on the Gift"

Heifer's program is designed to create positive spillovers

- "Pass on the Gift" requirement: Beneficiaries give a goat to another community member after 1.5 years
- Passed gift also includes group formation and training
 - Group formation done by original beneficiaries
 - Technical training done by original beneficiaries
 - Capstone (Empowerment) training comes directly from Heifer

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Livestock transfers

Little empirical evidence on the effectiveness of livestock transfers

- Rawlins et al. (2014) use PSM to find positive nutrition effects on children of a cow tranfer in Rwanda
- Argent et al. (2013) find that conditional on receiving a cow, (non-randomly assigned) livestock training increases milk production, earnings from milk, calves birthed, cows sold, and asset accumulation in Rwanda
- Clements (2012) uses BOTEC to find livestock transfers are very cost effective in Uganda
- Banerjee et al. (2012) use an RCT to find a (multiple) livestock transfer and training program to increase consumption, food security, happiness, and health among the ultra-poor in West Bengal

Research questions

- What are the impacts of a livestock transfer program on beneficiaries?
- What components of the program are most effective?
 - Physical livestock
 - Technical training and savings groups
 - Social mobilization
- Are there spillover effects?
 - By design, through "Pass the Gift"?
 - Spillovers to non-beneficiaries in same ward?
 - Spillovers to non-beneficiaries in other wards?

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Evaluation design: Unpacking transfer program effects

- I Technical Training + Empowerment Training + Goat
- Ichnical Training + Goat
- Statistical Training + Empowerment Training
- Ontrol

Compare the impact of training and asset transfers on following outcomes:



Measuring Outcomes of Interest

- Onsumption, Nutrition and Health
- Income and Economic Outcomes
- Female Empowerment:
 Women Empowerment in Agriculture Index
- Expectations, Aspirations and Hope: Bernard & Taffesse (2014) Index
- **1** Risk Management & Resilience

Measuring Outcomes of Interest

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Evaluation design: Unpacking transfer program effects

Compare outcomes between treatment *i* and control:

$$(\Delta Y_{T1} - \Delta Y_C) = Full Effect$$

- 2 $(\Delta Y_{T2} \Delta Y_C) = TT + Goat Effect$
- $(\Delta Y_{T3} \Delta Y_C) = TT + ET Effect$

Compare differential treatment effects:

- $(\Delta Y_{T1} \Delta Y_{T3}) = Marginal Impact Goat (beyond TT + ET)$
- $(\Delta Y_{T1} \Delta Y_{T2}) = \text{Marginal Impact ET (beyond TT + Goat)}$
- **③** $(\Delta Y_{T2} \Delta Y_{T3}) =$ Differential Impact of Goat vs Empowerment

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Qualitative evaluation



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Qualitative evaluation



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Analyze Spillover Effects

$$\Delta Y_{i} = \sum_{j=1}^{3} \beta_{OG}^{j} T_{i}^{j} O G_{i}^{j} + \sum_{j=1}^{3} \beta_{POG}^{j} T_{i}^{j} P O G_{i}^{j} + \sum_{j=1}^{3} \beta_{NS}^{j} T_{i}^{j} N S_{i}^{j} + \sum_{j=1}^{3} \beta_{FS}^{j} T_{i}^{j} F S_{i}^{j} + O G_{i} + N S_{i} + F S_{i} + \theta X_{i} + \varepsilon$$
(1)





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Treatment 1 = 15 VDCs x 60 Respondents = 900

Treatment 2= 15 VDCs x 60 Respondents = 900

Treatment 3 = 15 VDCs x 60 Respondents = 900

Control = 15 VDCs x 40 Respondents = 600

Total = 3300

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Qualitative evaluation

Study site and baseline data collection



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Study site and baseline data collection

- Chose sample upon consultation with Heifer
 - Prior presence and trusted partners in district
 - No prior presence in VDC
- Sampled VDCs generally in poor and less accessible areas
- Hill VDCs could be 10-12 hour walk from nearest road (not considered "remote" in Nepali context")
- Tarai VDCs within 2 hours of nearest road (not considered "remote" in Nepali context")
- Baseline data collection completed in June-July 2014 with enumeration team of 60; sample of 3200
- Network data collected in cooperation with Heifer in October 2014

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Qualitative evaluation

Networks Data Collection



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The Value of Networks Data

- Ontrol for networks to analyze spillover effects
- Analyze who gets spillover effects
- **③** Test aspirations theory literature:

"Individual desires and standards of behavior are often defined by experience and observation; they don't exist in social isolation..." (Ray 2006)

Timeline



Qualitative evaluation: Digging deeper to solve data puzzles

- 5 sites: 2 hill, 2 plains, 1 control
 - Linked to survey sample
 - Intersection of gender, ethnicity, caste, religious norms
 - How property rights are understood and affect benefits from program
- Focus group discussions
 - History of the goat and other development programs
 - Local power dynamics
 - Who was included or excluded
 - Non-financial benefits
 - Spill-over dynamics
 - Exploration of puzzles from survey analysis

Qualitative evaluation: Digging deeper to solve data puzzles

In-depth Interviews (beneficiaries and non-beneficiaries, project officials)

- Processes of the goat program
- Perceptions of benefits
- Intra-household dynamics (control over the transferred assets, income, and labor burdens)

Life-histories

- Changes in their lives, as perceived by them
- How the program fits into broader patterns

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Thank you

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