

# Impact of Microcredit on Gender, Agriculture and Nutrition in Households

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# Malnutrition remains a serious concern in India

- GDP grew at annual rate of 6-7 % between 1992-93 and 2005-06, and with the exception of 2008, averaged 7-8 % till 2010
  - Yet stunting decreased by less than 1% per year
  - And wasting among children aged 0-3 years increased by about 5% per year, roughly over the same period. (NFHS, 2005-06)
  - 35.5 per cent of children below five years were stunted and 32.1 per cent were underweight (NFHS, 2019-20)
  - Reasons include increasing expenditure on non food items (Banerjee and Duflo 2011), decrease in physical activity (Deaton and Dreze 2009), increases in the relative price of food (Gaiha, Jha and Kulkarni, 2010), gender inequality (Ramalingasawami et al, 2009)

# How can microcredit help?

- Advantages of microcredit vis- a vis nutrition
  - relax the budget constraint, have a pure “income effect” allowing consumption smoothing for households.
  - adoption of agricultural practices that raise the overall productivity of agriculture and resources
  - change the perceived economic value of women to men and promote newer opportunities that go beyond household work.
  - Group lending with joint liability contracts has added benefits of minimizing default, moral hazard and adverse selection (Morduch & Armendariz, 2005).
- Disadvantages of microcredit
  - “substitution effect” could result in less time devoted to childcare and investments in health as the opportunity cost of a woman’s time increases.
  - The non-separability of production and consumption would imply that diet diversity and nutritional status could be adversely affected as farms specialize in one crop or cash crops.

# Objective and Data

- To estimate the impact of microcredit on bargaining power of women, agricultural investments and household & individual nutritional status.
- We use the India Human Development Survey which is a nationally representative panel focusing on demographic information, gender relations, mother and child characteristics and farm activities
- Since intrahousehold decisions and agriculture are two main points of intervention in nutrition
  - We use indices of bargaining power and agricultural variables
  - Next, we examine the relationship of bargaining power and agricultural variables with anthropometrics for children and household level diet diversity scores.

Table 1: Summary statistics

	Participants	Non -Participants
Height-for age zscore	-1.81	-1.87
Stunting	0.38	0.41
Diet diversity	7.82	6.24
Decision making index	2.04	1.87
Mobility Index	0.99	0.95
Domestic Violence index	3.3	2.74
Agricultural variables	0.35	0.33
<b>Education of woman</b>		
No education	0.33	0.40
Primary	0.18	0.15
Middle	0.17	0.15
Secondary	0.27	0.21
Graduate	0.38	0.05
Postgraduate	0.1	0.02
Age at marriage (years)	18.1	17.8

## Table 2: Regression Results

	Decision making	Mobility	Domestic Violence	Agriculture	Orchard/plantation	Stunting	DDI
Participation	0.23 <sup>+</sup>	0.04 <sup>*</sup>	0.59 <sup>+</sup>	0.01	3.19 <sup>+</sup>	-0.5	0.61 <sup>+</sup>

- The index of agriculture and indices of bargaining power both, show an improvement for households borrowing microcredit, with the exception of domestic violence.
- The effect on bargaining power of women was slightly higher suggesting microcredit serves to alleviate gender inequalities, which is important from a nutrition point of view.
- The impact of participation was statistically insignificant on stunting but higher on diet diversity scores . This effect was most likely related to an overall increase in household income rather than an improvement in agricultural practices.
- Indirect effects of microcredit via decision making and mobility resulted in lower rates of stunting as expected.

# Conclusions

- Restrictions on access to micro credit can adversely affect female, small and marginal farmers operating in a non-separable framework
  - First in terms of income generation and productivity that ensures resources for food security
  - Second in terms of bargaining power that can alter the intrahousehold allocations of food and other nutrition related investments
- Microcredit schemes often combined with other actions to disseminate information about nutrition, health and agricultural practices, and aid in developing social networks.
- Although our study suffers from limitations of having only two rounds of data, our results highlight the importance of designing multi-pronged approaches to tackling malnutrition in developing countries.

Thank you!