

# Contribution of the Microcredit with Inputs on Nutrition and Food Security, and Women Empowerment in South Asia: An Evidence from Panel Data of Bangladesh

D4N 2025

M Mizanur Rahman Sarker

Department of Agricultural Statistics, Sher-e-Bangla Agricultural University, Bangladesh

## BACKGROUND

- Microcredit is widely used for poverty reduction and economic growth.
- Combining microcredit with agricultural inputs can improve nutrition and food security.
- Microcredit programs have improved food security for 30% of low-income households, enhancing nutrition and resilience. Women's economic participation has increased by 50%, enhancing their decision-making power and social empowerment in rural communities.
- This study uses panel data from Bangladesh to assess direct and distributional effects of microcredit-with-inputs programs.

## METHODS

- Study design: Observational study
- Sampling: Simple random sampling
- Sample size: 740 individuals
- Study locations: Rajshahi (Paba and Tanore upazila), Natore, and Kishorganj districts
- Analytical Model: Difference-in-Differences (DiD) and Fixed Effects models to assess impacts on well-being, nutrition, food security, and women's empowerment

## RESULTS

- The microcredit intervention led to a 52% increase in women's participation in loan decisions (from 25% to 77%).
- The program resulted in a 42% increase in household income (from 43% to 85%).
- Women's involvement in agricultural production decisions rose by 48% (from 40% to 88%).
- The intervention led to a 19.41% increase in food production and consumption, contributing to a 47.19% improvement in nutrition and food security.

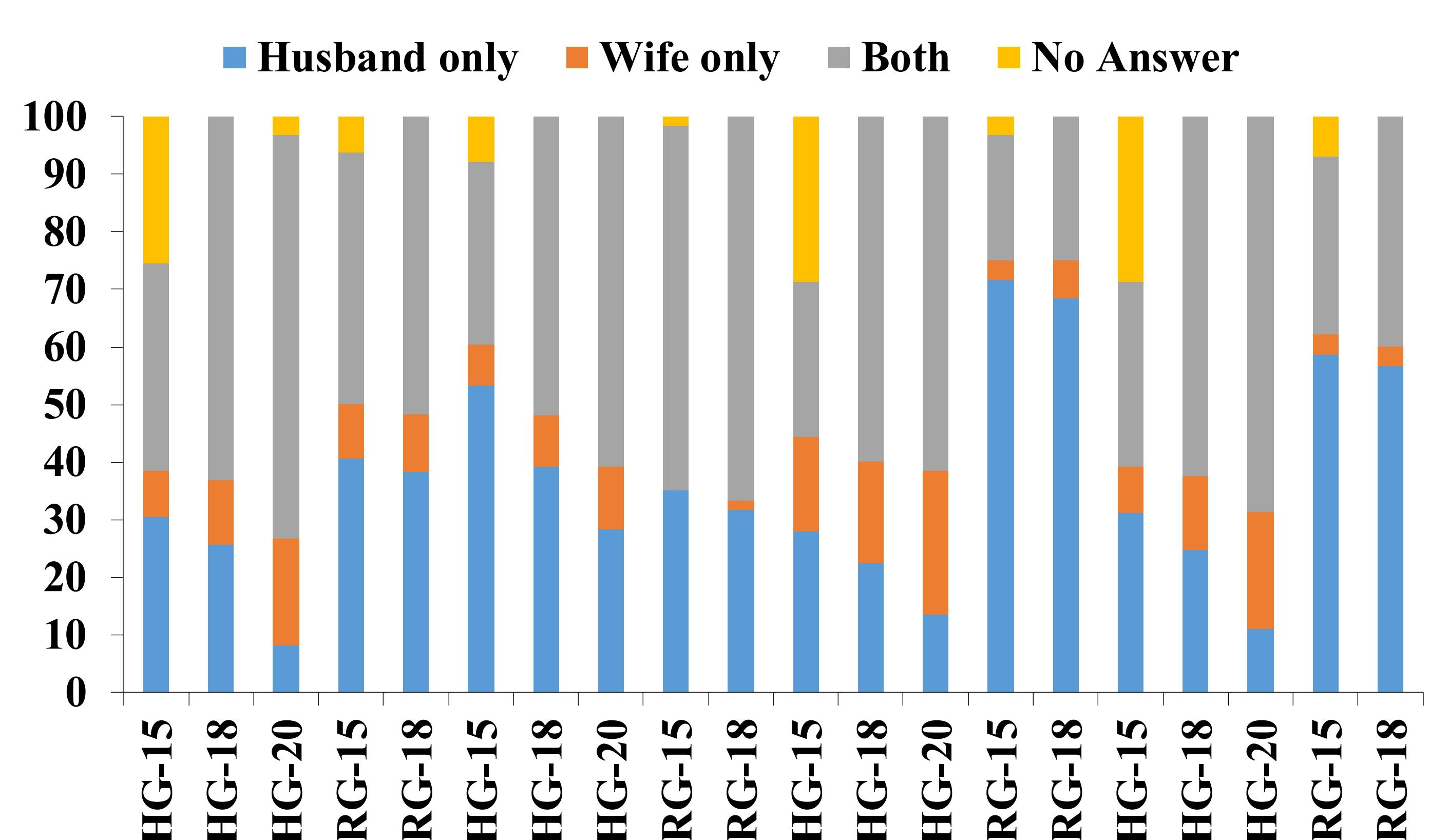


Table: Determinants of dietary diversity of food consumption in different groups of vulnerable people

Explanatory variables	Paba		Tanore		Overall	
	Coefficient	t-value	Coefficient	t-value	Coefficient	t-value
Constant	55.706**	7.064	46.074**	4.315	51.19**	9.963
Education	1. 832*	2.289	1. 058*	2.215	1.673*	2.373
Income	0.004**	4.389	0.005**	6.531	0.004**	6.165
Age	0.357	1.721	0.633	1.694	0.536	0.976
Family Size	-7.748*	2.213	-5.902*	2.291	-6.768*	2.386
Food Availability	4.091*	2.091	6.183*	2.503	5.355*	2.181
Landholding	3.138*	2.360	2.813*	2.471	2.923*	2.396
R Square	0.772		0.694		0.739	
F	17.211**		12.308**		14.624**	

\*\*\*significance at 0.01 probability level, \*\*significance at 0.05 probability level, \*significance at 0.10 probability level.

Figure: Participation of women in decision-making process over crop production



## CONCLUSION

- Microcredit with inputs improves nutrition, food security, sanitation, and household income.
- Women's participation in financial, agricultural, education, and social decisions is significantly increased.
- Scaling programs via partnerships among governments, NGOs, and microfinance institutions can accelerate sustainable rural development.

**Acknowledgement:** This poster was made possible by the generous support of Delivering Nutrition 2025 (D4N). The contents are the responsibility of the authors and do not necessarily reflect the views of D4N.