



AgEcon SEARCH
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search

<http://ageconsearch.umn.edu>

aesearch@umn.edu

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

Extension Program Impacts on Women's Empowerment via Improving Social Capital

Jeb Asirvatham¹, Han B. Lee², Paul E. McNamara²

¹Southern Illinois University Carbondale, ²University of Illinois Urbana-Champaign

Selected paper/poster prepared for presentation at the 2018 Agricultural & Applied Economics Association Annual Meeting, Washington, D.C., August 5-7, 2018

Copyright 2018 by Jeb Asirvatham, Han B. Lee, Paul E. McNamara. All rights reserved. Readers may make verbatim copies of this document for non-commercial purposes by any means, provided that this copyright notice appears on all such copies.

Extension Program Impacts on Women's Empowerment via Improving Social Capital

Jeb Asirvatham¹, Han B. Lee², Paul E. McNamara²

¹Southern Illinois University Carbondale, ²University of Illinois Urbana-Champaign



Women's Empowerment & Social Capital

Women's Empowerment:

- Is key to sustained economic growth and social transformation
- Improves the quality of life of their families and communities

Social Capital:

- Measures participation in social groups
- Has long-term impacts on individuals and communities
- Improves horizontal and vertical networks in groups
- Enhances the effectiveness of a program

Extension Program in Bangladesh

Characteristics of the study area

The study was conducted in two rural districts with mostly low income families. The area has a patriarchal social structure.

Extension Program, 2013-2016: was implemented at the village-level by *Integrating Gender and Nutrition within Agricultural Extension Services (INGENAES)* in partnership with *Caritas Bangladesh (CB)* and *Catholic Relief Services (CRS)*.

The **primary purpose** was to improve household food security by assisting in the production, marketing and financial aspects of farming.

Study Objective

Measure the impacts of the extension projects, *Egiye Jai* & *Nijera Gori*, on social capital.

Data & Methods

Data: Cross-sectional data collected from two surveys in 2016.

Method: Propensity Score Matching (PSM), a quasi-experimental, method is used to address endogeneity bias.

Logit models are also run to understand the differences in association of social capital and covariates between the treatment and control groups.

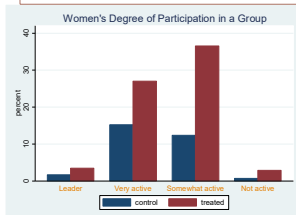


Figure 1 shows that women in the treated group were more active in social groups

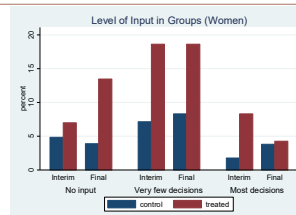


Figure 2 shows that women's level of input in decisions within social groups remained high but declined between the interim and final year.

Social Capital Indicators

- **Level of community group participation:** a higher value indicates more active group participation
- **Level of control over group decision-making:** a lower value indicates more control over group decisions
- **Crop disease:** if entire crop in the neighborhood is affected, responsibility owned by: individual (score 1) to owned by entire neighborhood (score 5)
- **Dispute** between individuals is resolved by: individual themselves (score 1) to collectively by the neighborhood (score 5)
- If children are **disrespectful to elders**, who corrects them: no one (score 1) to anyone in the neighborhood (score 5)
- **Social Capital index:** was created using response to 6 questions on neighborhood - trustworthiness, honesty, willingness to help, availability to help, safety, and prosperity.



Results: Logit Model

- Individuals in treated villages were more likely to be active in a social group.
- Women in treated villages were twice as likely than men to become more active members of a group they belong to.
- However, women, compared to men, were less likely to take up leadership roles in social groups.

Table 1. A Comparison of Matching Quality Results of Before and After Kernel Matching.

	Egiye Jai		Nijera Gori	
	Before matching	After matching	Before matching	After matching
Pseudo R ²	0.32	0.01	0.27	0.01
LR chi-square	772.34	18.14	683.52	20.66
(p > chi-square)	(0.00)	(0.510)	(0.00)	(0.36)
Mean standardized bias	22.80	3.30	22.60	16.90
Median standardized bias	10.50	2.10	4.00	4.00

Table 2: Impact of Egiye Jai and Nijera Gori Project on the Social Capital Indicators using PSM[‡] method

	Egiye Jai	Nijera Gori
WOMEN in community groups		
No. of groups they belong to [c]	0.488*** (0.133)	1.112*** (0.104)
Level of group participation [c]	0.049 (0.114)	-0.162*** (0.055)
Level of control in decision-making [c]	0.070 (0.131)	0.080 (0.086)
MEN in community groups		
No. of groups they belong to [c]	0.001 (0.022)	0.002 (0.061)
Level of group participation [c]	0.107 (0.206)	-0.314** (0.142)
Level of control in decision-making [c]	0.003 (0.173)	0.272 (0.173)
Crop disease [o]	3.458*** (0.607)	2.486*** (0.650)
Dispute [o]	1.829*** (0.240)	0.925*** (0.250)
Disrespectful to elders [o]	1.280*** (0.203)	1.753*** (0.275)
Social capital index [c]	0.443*** (0.133)	0.394*** (0.068)

Note: Robust SE are reported in parenthesis.

‡ PSM: Propensity Score Matching

* significant at 10 %, ** at 5 %, and *** at 1 % level.

[c]: continuous dependent variable.

[o]: ordered categorical dependent variable

Results: Matching Method

- Women in treatment villages belonged to more social groups than men in treatment villages and women in control villages.
- Villagers in treatment villages worked together to resolve issues around crop disease, disputes between neighborhoods, and child's disrespect to elderly issues.
- Beneficiaries of the two extension project experienced an increase in the social capital index score by 0.44 (or 0.44/6) and 0.39 (or 0.39/6)

Implications

Findings are in concordance with the conservative belief system prevalent in villages where the program was implemented.

In a conservative patriarchal society, women empowerment could be better achieved by a gradual transition from active participation to taking up leadership roles. This would help build up society and garner more support.

Contact

Jebaraj Asirvatham: jebaraj@siu.edu
Han Bum Lee: lee466@illinois.edu
Paul E. McNamara: mcnamar1@illinois.edu

Acknowledgements

This research was supported by the USAID-funded Integrating Gender and Nutrition within Agricultural Extension Services (INGENAES) projects, as well as by internal funds from Catholic Relief Services (CRS), Caritas Bangladesh (CB), and the University of Illinois. These sources of support are gratefully acknowledged. We also deeply appreciate the on the ground assistance of Caritas field staff and private enumerators who assisted with collecting field data. Furthermore, we acknowledge the contribution of CRS monitoring and evaluation staff and other in CRS who contributed to this research. Lastly, we would like to acknowledge the many grassroots farmers who provided survey responses to this study. Hopefully, our research will illuminate policies that have a positive impact on understanding by development practitioners and funders concerning the usefulness of livelihood projects on their target population of small holder farmers.