

# Exploring the linkage between women's status and household food security in Bhutan

Orkhan Sariyev, Tim K. Loos, Manfred Zeller

## Background & Problem statement

- In domestic decision-making, individual preferences do matter a lot and women's status is extensively found to have a significant positive effect on nutritional status of children in South Asia, SSA and Latin America (Quisumbing and McClafferty, 2006).
- In light of broad literature on food security, gender and their interaction, women empowerment is proven to be an effective pathway to contribute to the household level food security.
- Despite this, one fails to find its examination in social contexts where females historically enjoyed equality and even, possibly, favoritism.

## Objectives

- 1) Investigate an intra-household decision-making and women's participation in crucial decision-making processes of Bhutanese households' livelihoods.
- 2) Identify the outcome of the level of female involvement in domestic decision-making on households' dietary diversity and test if the relationship is linear.

## Data & Methods

- Quantitative data were collected from 214 Bhutanese households.
- In-depth interviews were conducted in 5 Gewogs with families from different social, ethnic and economic background.
- Two central western Dzongkhags of Bhutan: Tsirang and Dagana.
- Adopted from Sariyev, Loos and Zeller (2017), for each decision domain  $i$ , women participation in decision-making (WPDM) is calculated by :

$$WPDM_i = \frac{\sum FPDM_i}{\sum PDM_i}$$

where:

- $FPDM_i$  = female participant in  $i$ th decision domain
- $PDM_i$  = any gender participant in decision-making in  $i$ th decision domain
- 0 = no female participates to 1 = only female participate
- Principal Component Analysis (PCA) to develop Woman Participation in Decision Making Index (WPDMI).
- Linear and non-linear regression models to estimate effects on the FVS and HDDS.

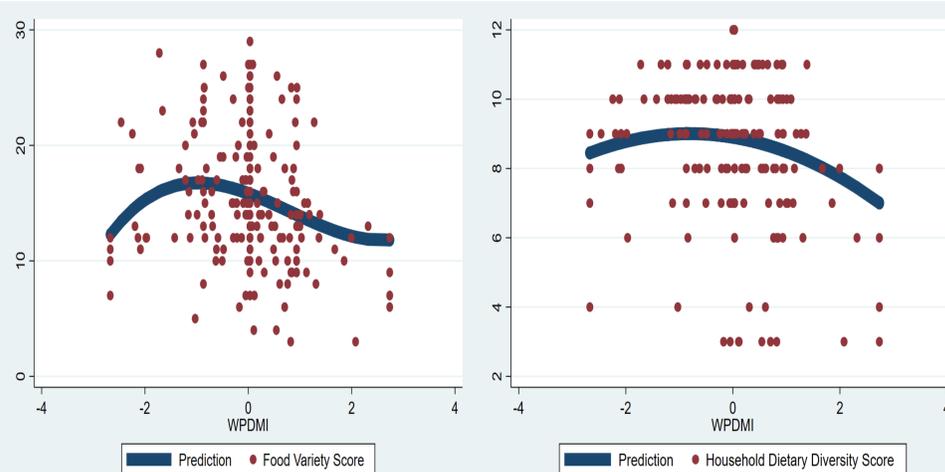
## Conclusion

- ✓ Bhutanese women do not lack any significant participation in domestic decision-making
- ✓ The probability of women having greater say in decision-making processes is higher when they possess rights to the land
- ✓ Gender equal domestic decision-making positively affects dietary diversity of Bhutanese households.



## Results

- In both quantitative analysis and in-depth interviews, females were not found to be lacking any significant participation in domestic decision-making.
- Interactions between WPDMI and dietary diversity scores are nonlinear.



- We measure gender equality in decision-making (i.e. GED) with an easy mathematical transformation on WPDM values and develop GEDI:

$$GED = 1 - \frac{|WPDM - 0.5|}{0.5}$$

	FVS	HDDS
<b>VARIABLES</b>	<b>Coefficient</b>	<b>Coefficient</b>
GEDI	1.061***	0.330***
Head age	-0.015	-0.006
Highest education years	0.101	0.019
Household size	0.381	0.184*
Dependency ratio	-2.915*	-1.347*
Per capita farm size	-0.691*	-0.132
Total agricultural income	0.000*	0.000
Per capita food expenditure (Log)	1.328**	0.663***
Production diversity	0.278*	0.209***
Off farm income	-1.366	0.133
Farm road	-0.042*	-0.003
Soil quality	2.458***	0.473**
Region - Tsirang	2.052**	1.329***
R-squared	0.330	0.426

## References

- Quisumbing, M. A. R., & McClafferty, B. F. (2006). Food security in practice: Using gender research in development. Washington D.C.: International Food Policy Research Institute.
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**Contact: Orkhan Sariyev**  
University of Hohenheim (490A)  
Wollgrasweg 43, 70599 Stuttgart  
Email: o.sariyev@uni-hohenheim.de  
Phone: +49 (0)176 – 43231585

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