



Vulnerability of Poor Households in Greater Rangpur

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WHY Vulnerability?

- Vulnerability is different from poverty
- Difference is risk
- Need to assess because
 - A poor of today may be worse off tomorrow
 - Vulnerability based strategies will reduce poverty and stabilize volatility

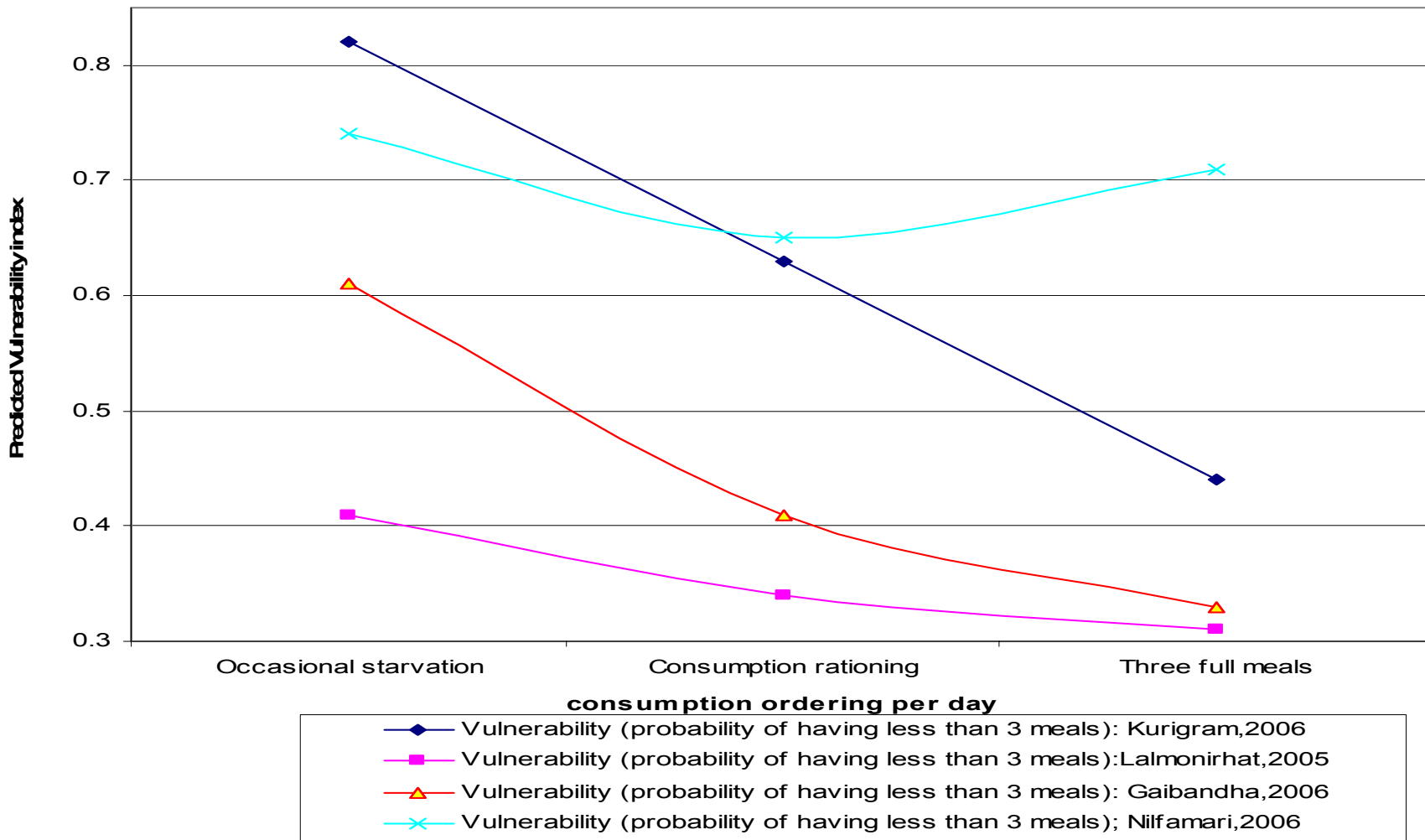
Data and Measurement of Vulnerability

- Census data of poor households in Lalmonirhat (120,936 HHs), Kurigram (>154,000 HHs), Gaibandha (>102,000 households) and Nilphamari (>57,000 HHs)
- Vulnerability is defined as the probability of not having three meals
- Vulnerability measured in terms of consumption ordering
 - Occasional starvation
 - Consumption rationing
 - Three meals
- Generalised Ordered Logit technique was used to assess degree of vulnerability

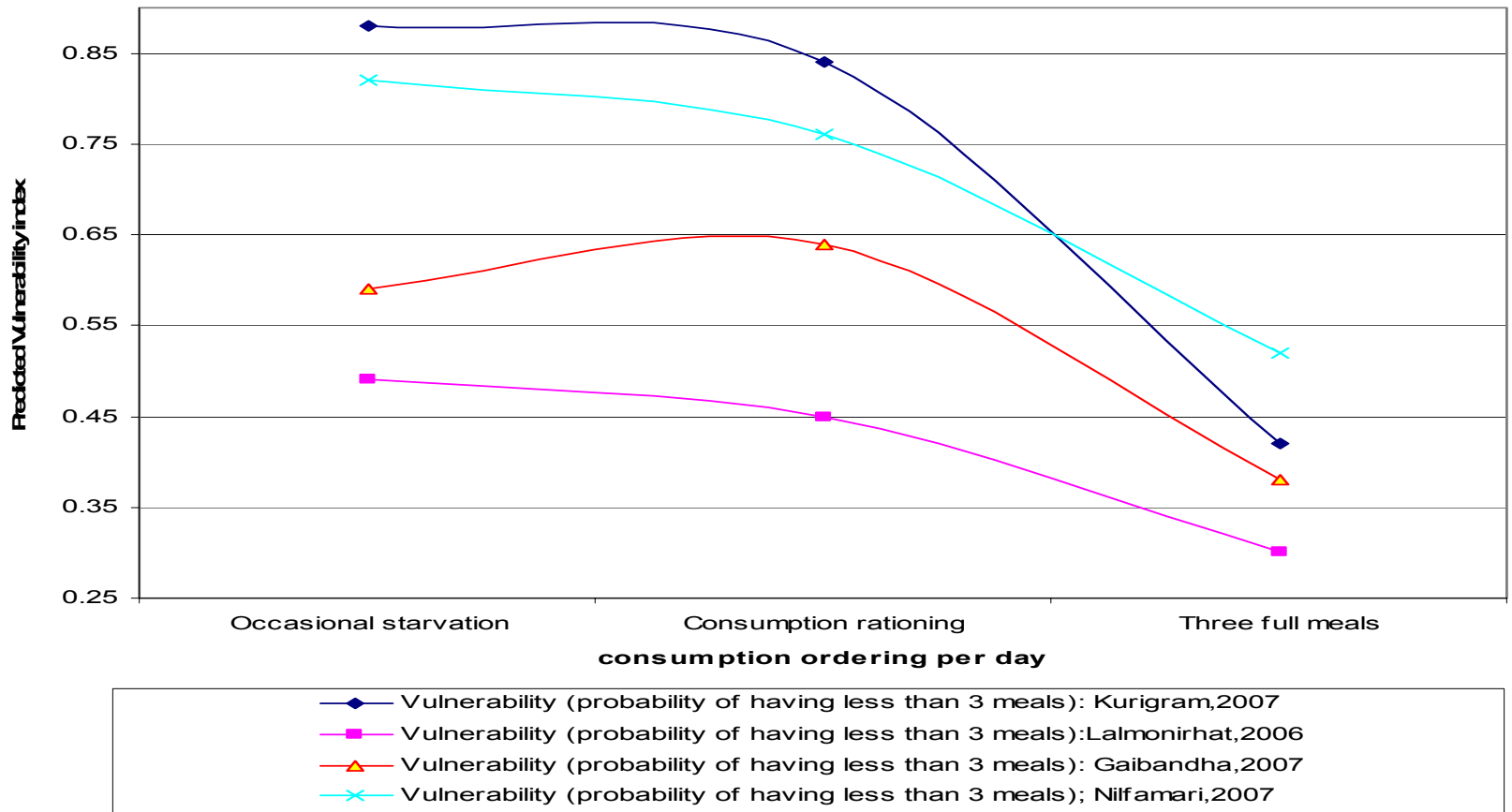
Vulnerability Index

District	Monga Time: Consumption ordering	Three full meals	Vulnerability (p< 3 meals)
Kurigram	Occasional starvation	0.18	0.82
	Consumption rationing	0.37	0.63
	Three full meals	0.56	0.44
Gaibandha	Occasional starvation	0.39	0.61
	Consumption rationing	0.59	0.41
	Three full meals	0.67	0.33
Nilphamari	Occasional starvation	0.26	0.74
	Consumption rationing	0.35	0.65
	Three full meals	0.29	0.71
Lalmonirhat	Occasional starvation	0.59	0.41
	Consumption rationing	0.66	0.34
	Three full meals	0.69	0.31

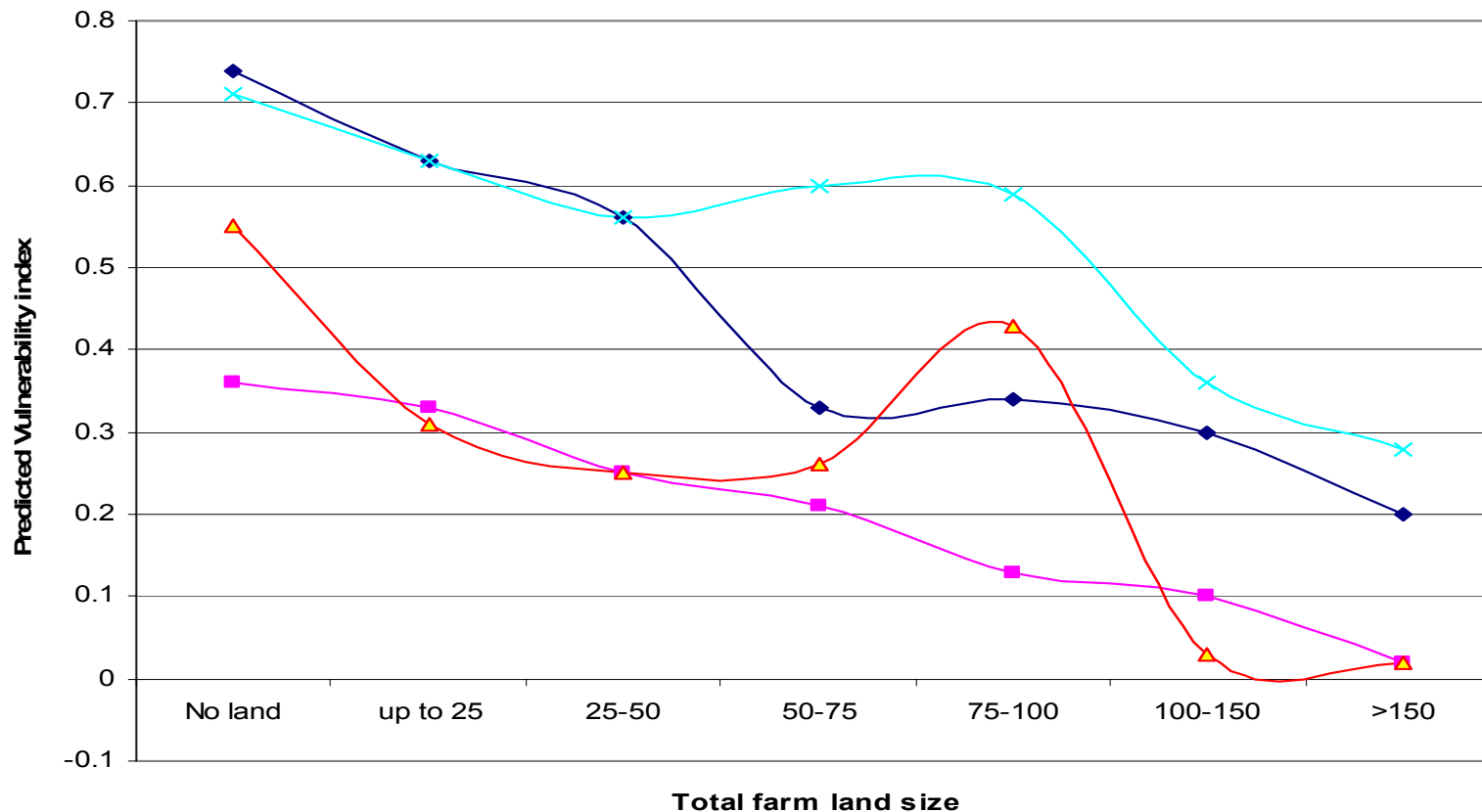
Vulnerability index by Consumption ordering (monga time)



Vulnerability with normal time



Vulnerability Index by Farm Size

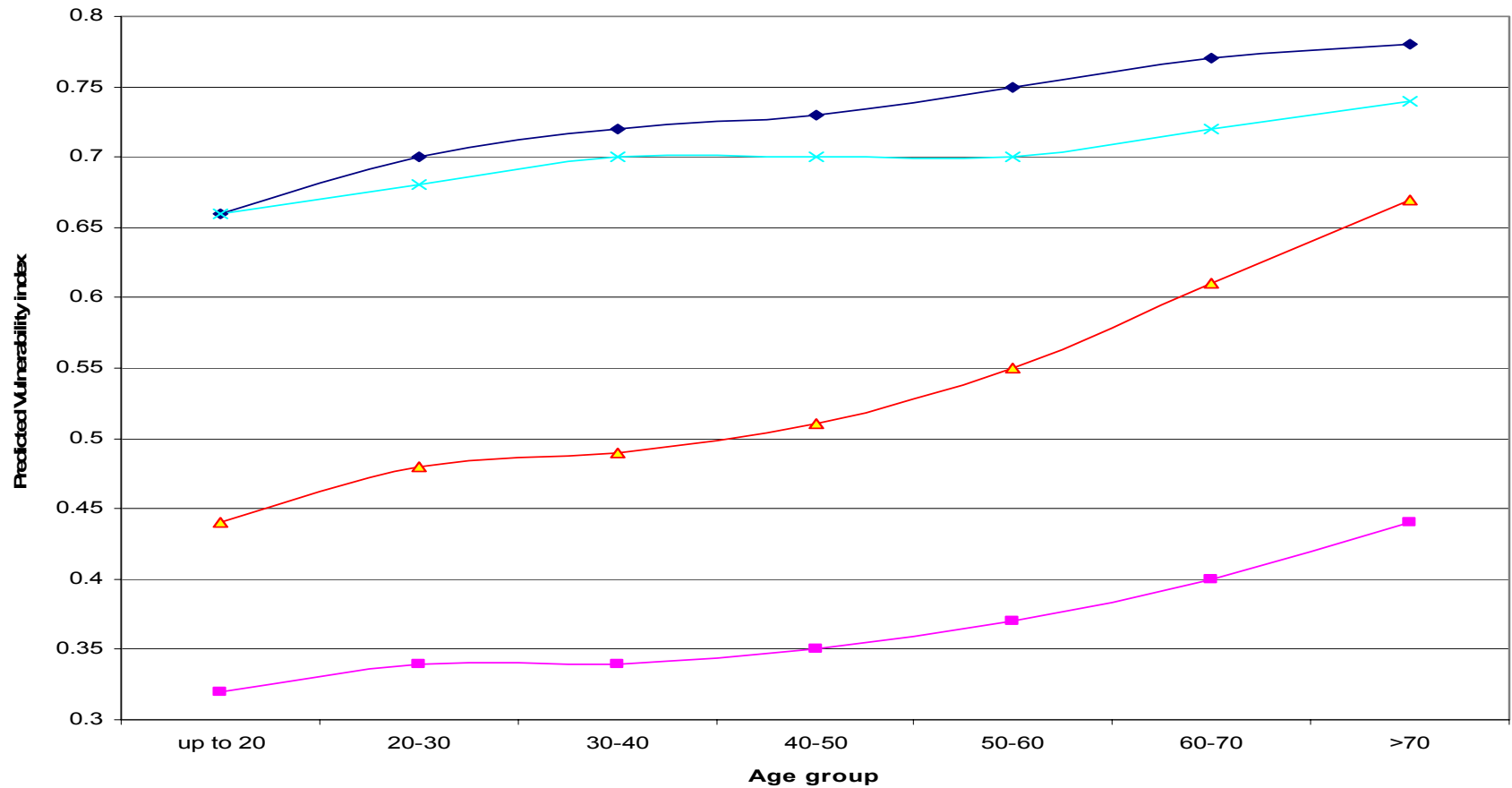


- ◆ Vulnerability (probability of having less than 3 meals): Kurigram, 2007
- Vulnerability (probability of having less than 3 meals): Lalmonirhat, 2006
- ▲ Vulnerability (probability of having less than 3 meals): Gaibandha, 2007
- × Vulnerability (probability of having less than 3 meals); Nilf amari, 2007

Vulnerability by Number of Employments

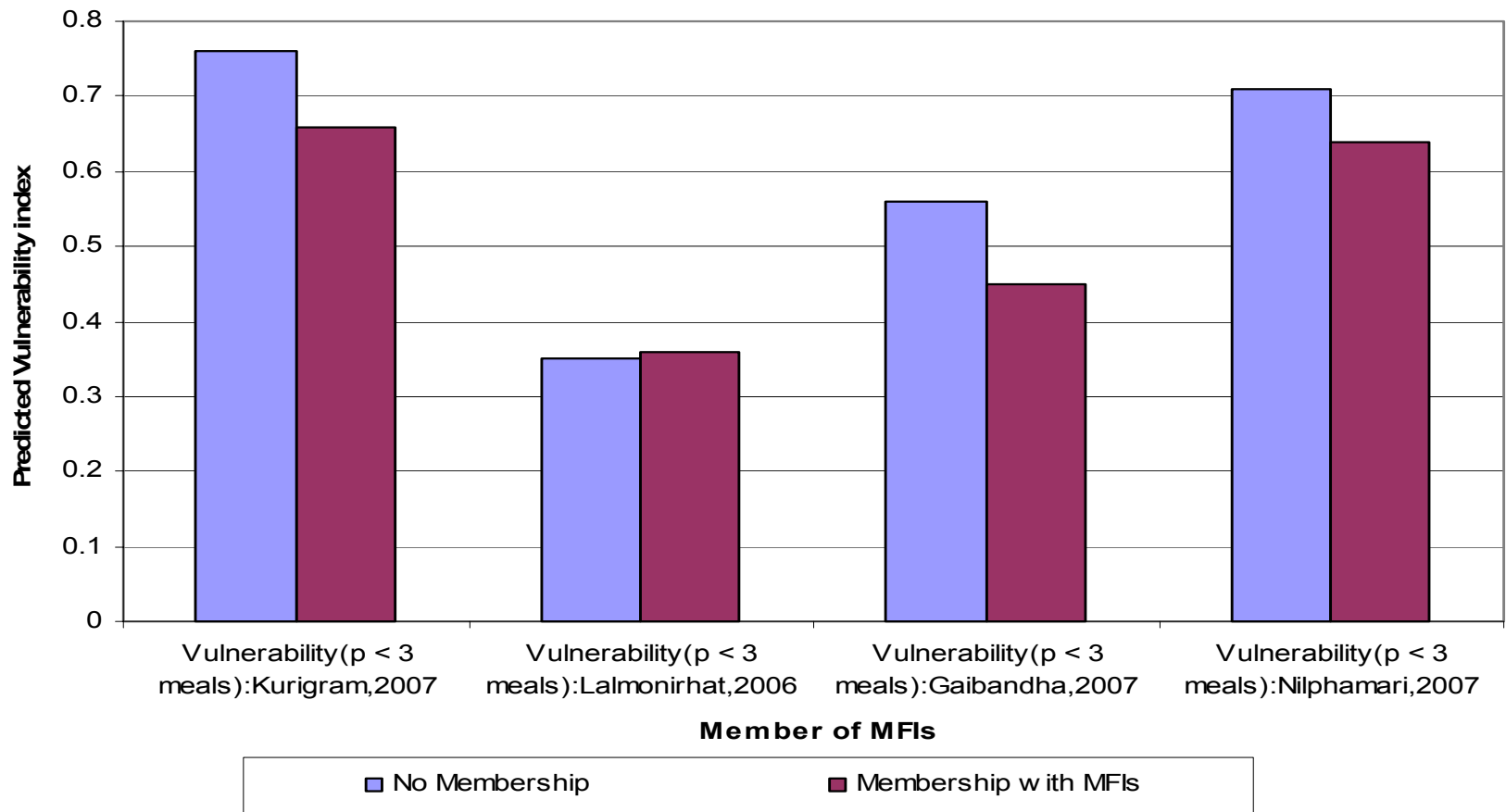
District	No. of Employment	Three full meals	Vulnerability ($p < 3$ meals)
Kurigram	0	0.23	0.77
	1	0.27	0.73
	2	0.42	0.58
	3	0.40	0.60
	4	0.55	0.45
Lalmonirhat	0	0.51	0.49
	1	0.65	0.35
	2	0.65	0.35
	3	0.71	0.29
Gaibandha	0	0.42	0.58
	1	0.53	0.47
	2	0.68	0.32
	3	0.80	0.20
	4	0.93	0.07
Nilfamari	0	0.24	0.76
	1	0.31	0.69
	2	0.28	0.72
	3	0.27	0.73
	4	0.43	0.57

Vulnerability by Age of Head

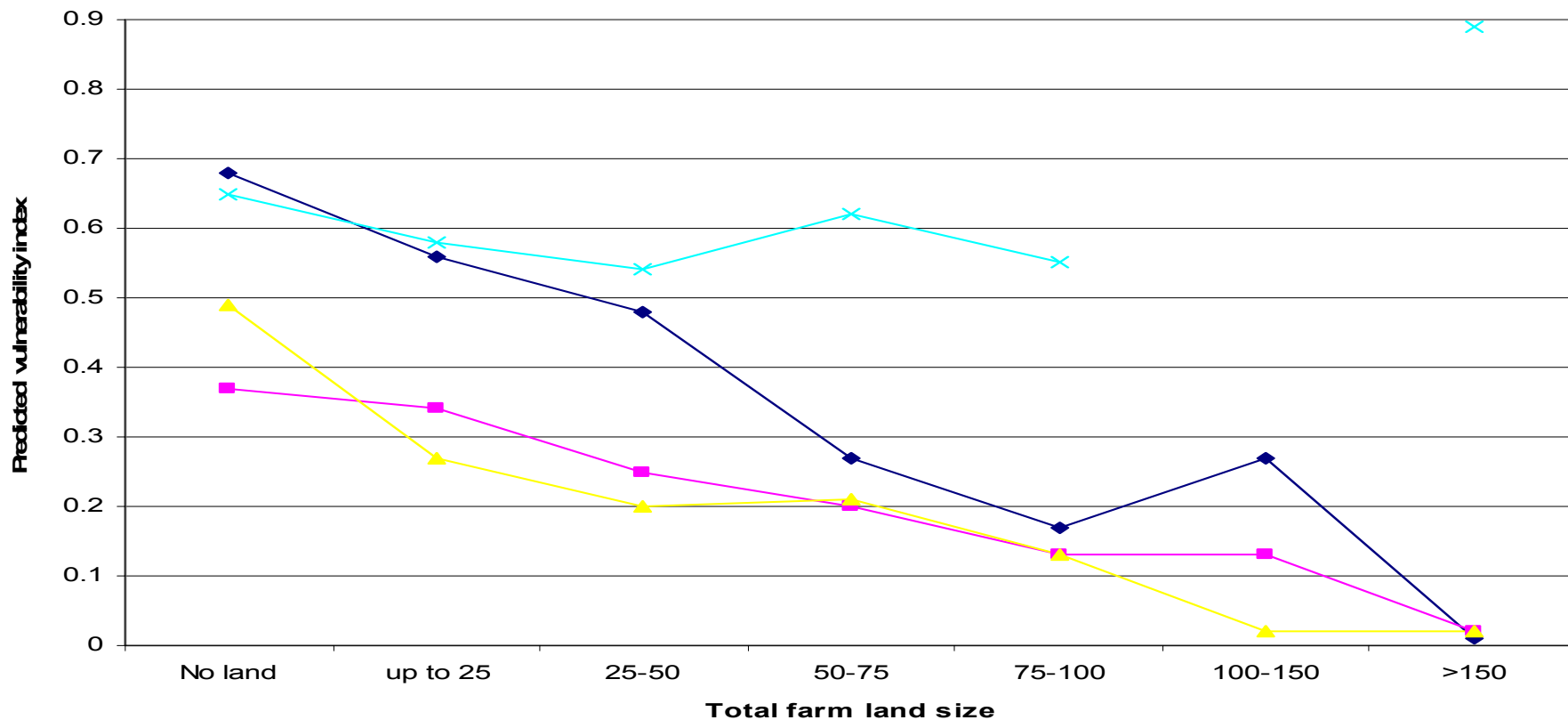


- ◆ Vulnerability (probability of having less than 3 meals): Kurigram, 2007
- Vulnerability (probability of having less than 3 meals): Lalmonirhat, 2006
- ▲ Vulnerability (probability of having less than 3 meals): Gaibandha, 2007
- × Vulnerability (probability of having less than 3 meals): Nilfamari, 2007

What Role Does MF Play?



Vulnerability by Farm Size if MFI Member













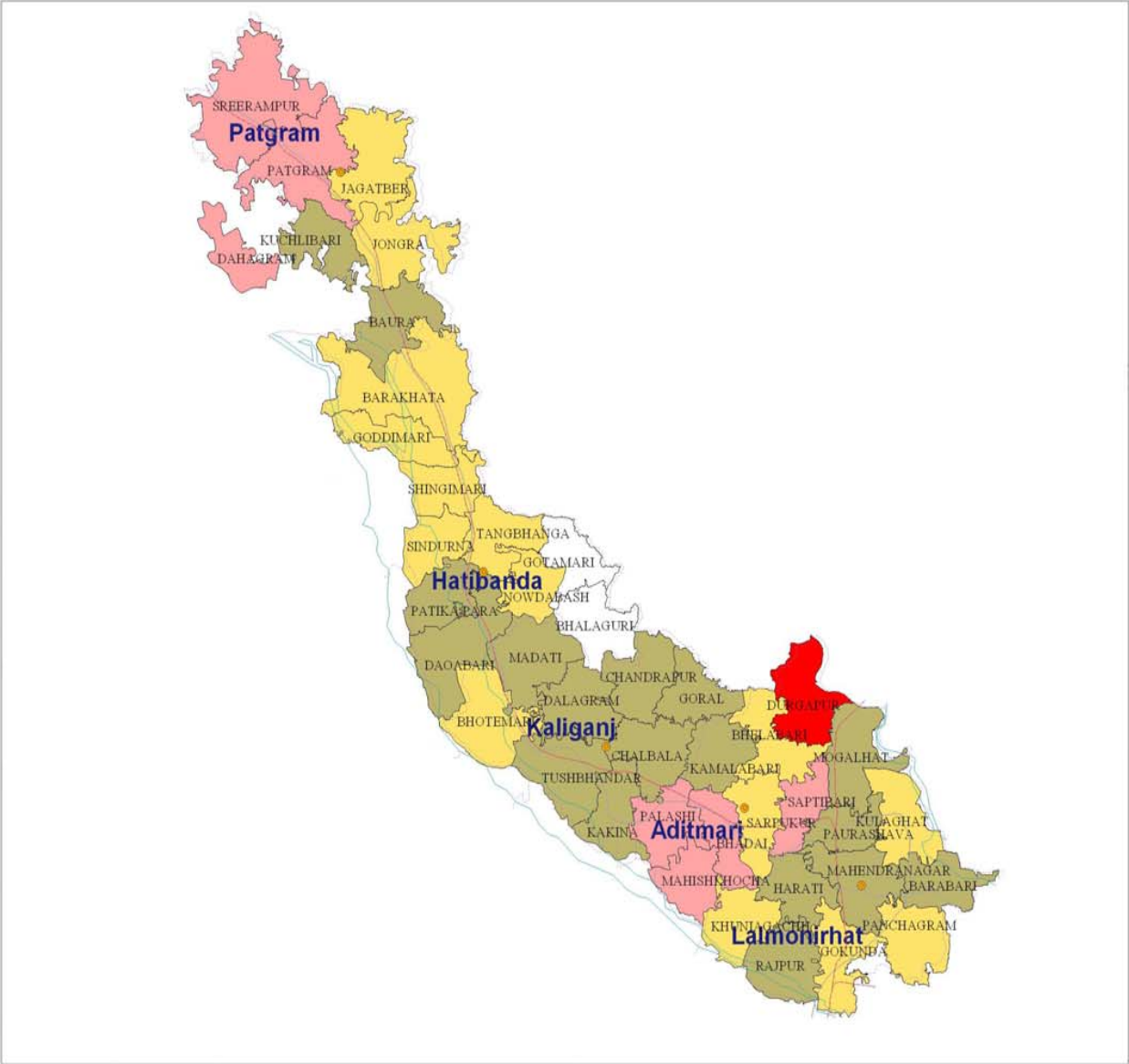
◆ Vulnerability (p < 3 meals):Kurigram,2007
 ■ Vulnerability (p < 3 meals):Lalmonirhat,2006
▲ Vulnerability (p < 3 meals):Gaibandha,2007
 × Vulnerability (p < 3 meals):Nilphamari,2007













Vulnerability by Region

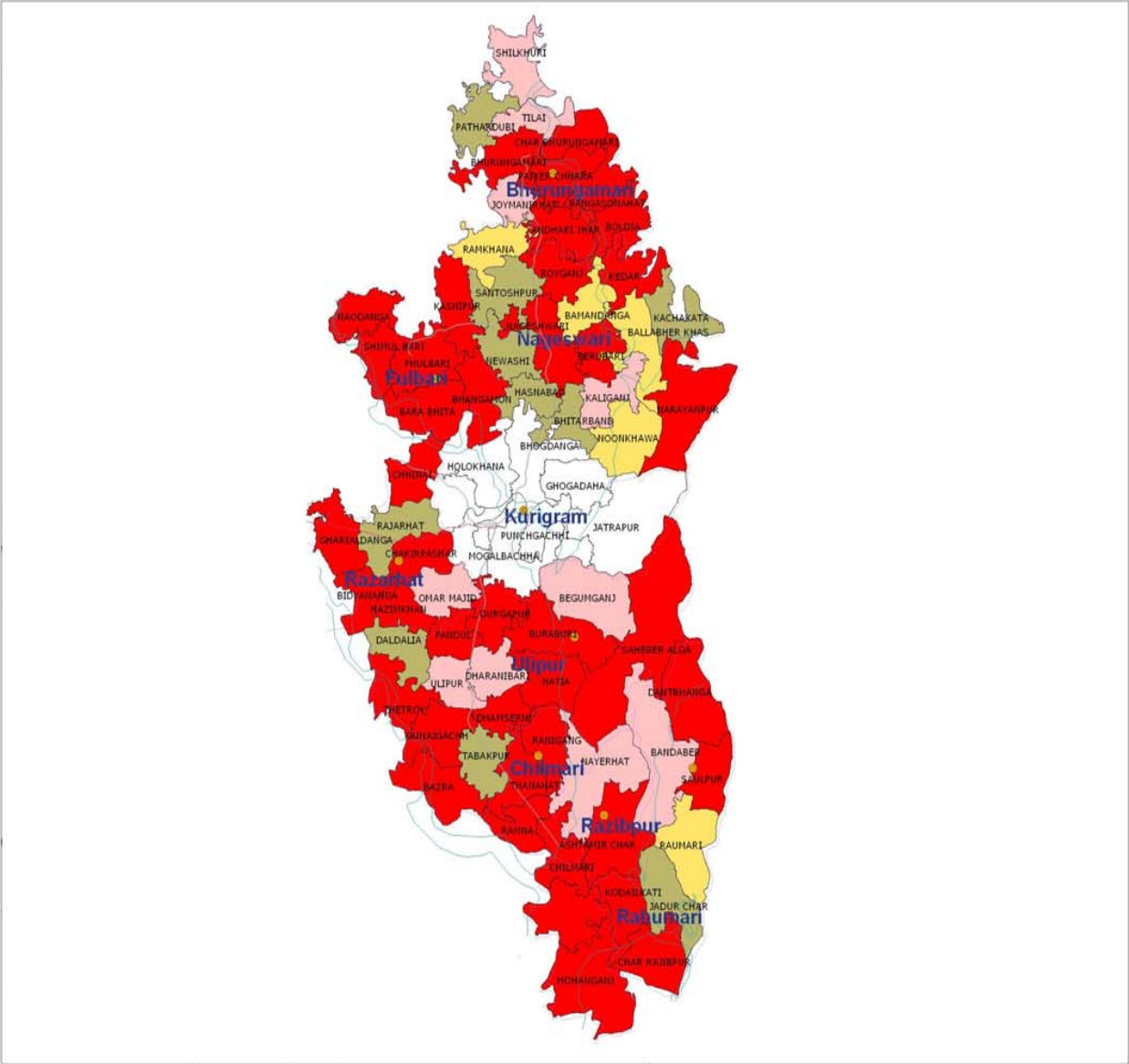
Lalmonirhat District

-  Rail Road
-  Upazila HQ
-  Road Network
- Text** Upazila
-  Upazila Boundary
-  Major Rivers
-  Not Yet Covered
-  Less Vulnerable
-  Moderate
-  High
-  Extreme



Kurigram District

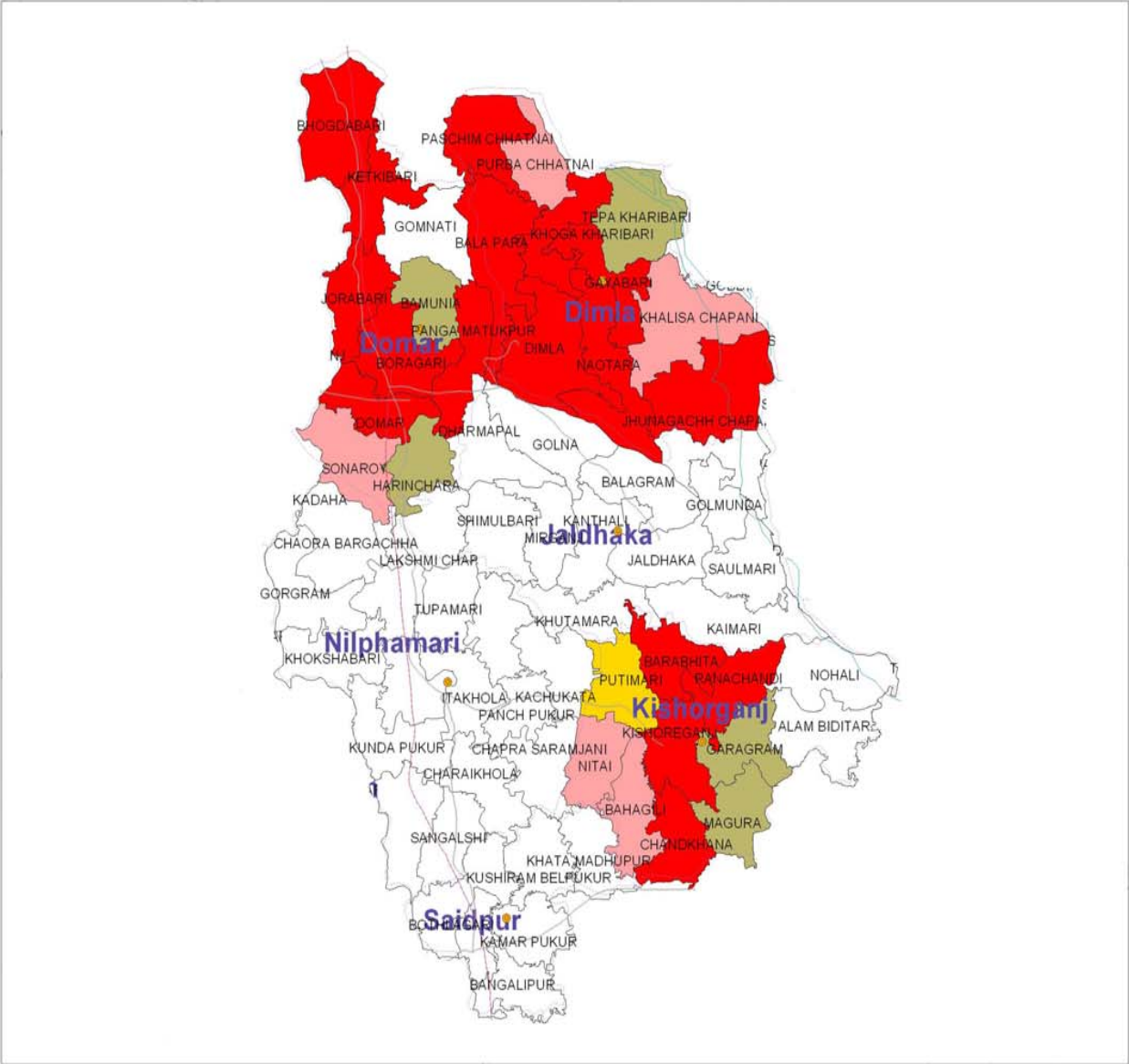
-  Rail Road
-  Road Network
-  Upazila Boundary
-  Major Rivers
- Text** Upazila
-  Upazila HQ
-  Not Yet Covered
-  Less Vulnerable
-  Moderate
-  High
-  Extreme



10 0 10 20 Miles

Nilphamari District

-  Rail Road
-  Upazila HQ
-  Road Network
- Text** Upazila
-  Upazila Boundary
-  Major Rivers
-  Not Yet Covered
-  Less Vulnerable
-  Moderate
-  High
-  Extreme



Predicted probabilities (mean) of Vulnerability by Participation in VGD

District	VGD	Occasional starvation	Consumption rationing	Three full meals	Vulnerability ($p < 3$ meals)
Kurigram	No	0.11	0.62	0.27	0.73
	Yes	0.08	0.62	0.30	0.70
Lalmonirhat	No	0.02	0.33	0.65	0.35
	Yes	0.03	0.35	0.63	0.37
Gaibandha	No	0.02	0.48	0.50	0.50
	yes	0.04	0.57	0.40	0.60
Nilphamari	No	0.14	0.55	0.30	.70
	yes	0.08	0.47	0.44	.56

Predicted probabilities (mean) of Vulnerability by Old Age Allowance

District	Old Age Allowance	Occasional starvation	Consumption rationing	Three full meals	Vulnerability (p < 3 meals)
Kurigram	NO	0.11	0.62	0.27	0.73
	Yes	0.13	0.62	0.25	0.75
Lalmonirhat	No	0.02	0.33	0.65	0.35
	Yes	0.03	0.39	0.57	0.43
Gaibandha	No	0.02	0.48	0.50	.50
	yes	0.04	0.63	0.33	.67
Nilphamari	No	0.14	0.55	0.31	0.69
	yes	0.14	0.63	0.23	0.77

What Conclusions Do We Make?

- Kurigram is most vulnerable
- Lalmonirhat is least
- Households with older heads are most vulnerable
- Household with single occupation is most vulnerable
- VGD effective for households with occasional starvation, not for others
- Old age allowance does not reduce vulnerability; it does for households having three meals
- Micro finance works better for households with large farm. Almost zero vulnerability for MF members with farm size of 150 decimal

Who Will Be Worse Off or Better Off?

Variable	↓ Worse off	↑ Better off
Age of the household head	Older	Younger
Family Size	Large	Small
Number of male active members	No or single	More than one
Number of employments	No or single	More than one
Occupation	Begging Day labor Self-employment – agriculture Fisheries	Fixed income* Off-farm self employment
Own land	Landless or negligible	Large
Economic assets	No or insignificant assets	Livestock* Off-farm economic assets
Safety net programs	Old age allowance	VGD
Insurance mechanism		Own savings*
Membership		Micro finance*
Coping strategy	Advance labor sale Assets sale Borrowing from informal credit market	Migration

Policy Questions?

- Why external support is dominating in Lalmonirhat when most vulnerable is Kurigram?
- Should there be long term policy decision for the households in river belt areas?
- Should micro finance move from its traditional design?
- Should safety net programs be more focused in terms of identification and use of VGD/VGF and old age allowance?
- How can migration be promoted and make it more meaningful?
- What types of policy should be developed for households with older heads?
- How can real assets be transferred to extreme poor – most vulnerable households?

