FACTORS AFFECTING EXTENT OF RURAL LIVELIHOOD DIVERSIFICATION: A CASE STUDY OF NOAHATA UNION, RAJSHAHI

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What is **rural livelihood diversification**?

It’s the involvement of rural households in **multifarious activities** to survive and improve their **living standard** other than solely relying on a single income source.

Necessity of this study

Though agriculture has been the primary source of livelihood diversification in rural regions, it has been quickly migrating towards **other sources** in recent years due to **volatile pricing** and **weather circumstances**. Diversification is critical in eliminating poverty and raising rural people's standard of living. However, **this pattern is not consistent across Bangladesh**.

Thus, it is critical to study the **pattern of diversification** among rural families and determine the **elements** that contribute to it. It would help **policymakers** and aid **organizations** finance initiatives that will help Bangladesh's rural economy grow.

Study Area & Sample Size

For conducting the research, **Noahata** union of Paba Upazila, Rajshahi has been selected. Noahata is located to the North of Paba Upazila. Noahata is 36 Sq. Km (appx.) and has 18 ward and 56 mahallas. Within these spots the following research will be conducted in the agricultural based villages which are

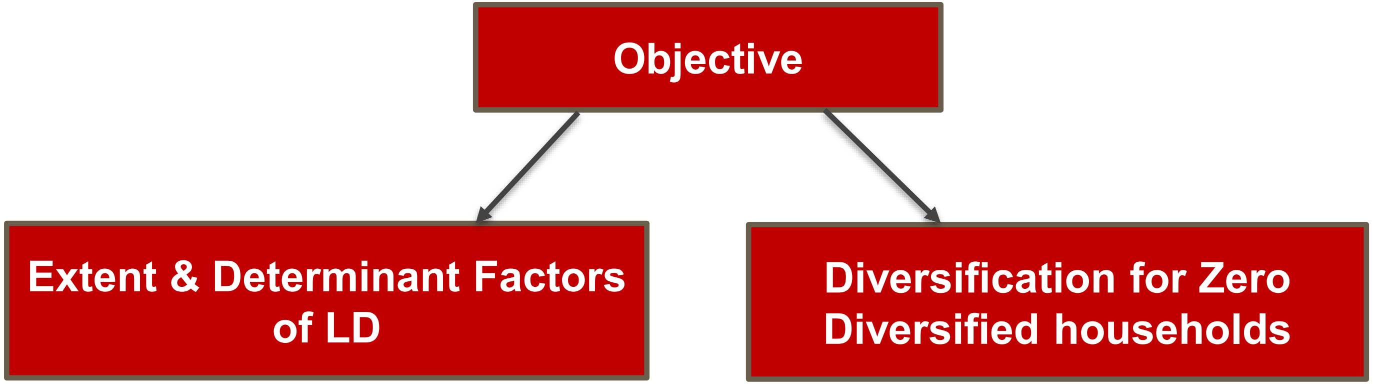
- **East Puthiya Para,**
- **Middle Puthiya Para**
- **West Puthiya Para**

Population Size:
400 Households
Sample Size:
125 Households (Appx.)

Study **Objectives**

1. To identify the **extent** of livelihood diversification (LD) and it’s **determinant factors** (OLS Regression approach)

2. Identification and suggestion of diversification to **zero diversified** households



Study Objectives

Determinants for livelihood diversification by SID

- Gender (male/female)
- Age (In years)
- Years of schooling (in numbers)
- Farming or other activities
- Number of family members
- Farm size (bigha)
- Land ownership (landless/small/medium)
- Value of household assets excluding cultivable land (BDT)
- Amount credit received in a year (BDT)
- Amount of savings in a year (BDT)
- Organization member (yes or no)
- Migrants in family (yes or no)
- Participation in development program (yes or no)
- Distance from district town in Km
- Distance from nearest market place in Km

Household income sources

Farming

- Rice crop
- Non-rice crops
- Non-crop agriculture (livestock, fishery etc.)
- Agricultural labourer

Others

- Non-agricultural labourer
- Petty business

Objective 1 (Part A)- Extent of LD Identification

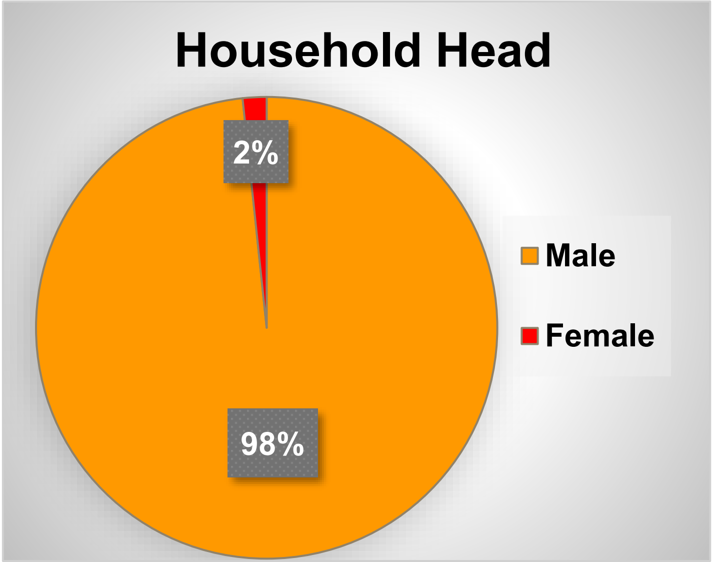


Fig 1: 98% of household head were male and 2% were female

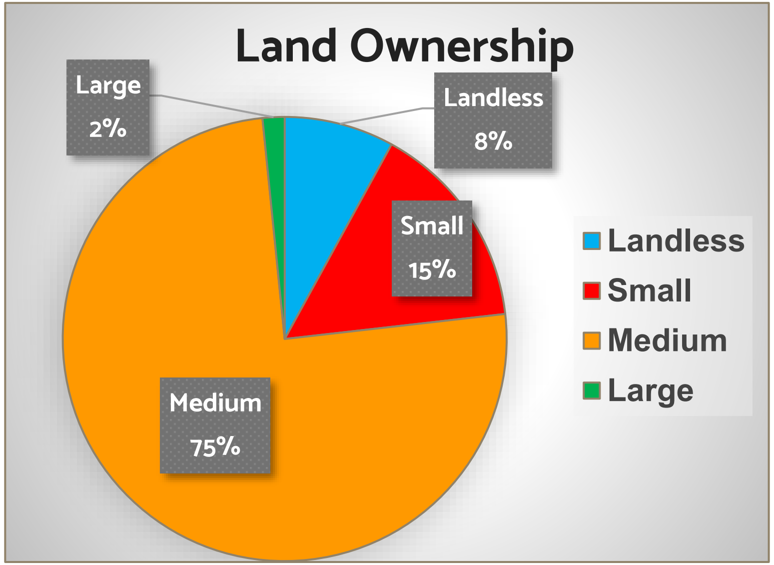


Fig 2: 75% respondents has medium sized land ownership, 15% having small, 2% having large and 8% having no land at all

Data Analysis

Objective 1 (Part A)

Data Analysis

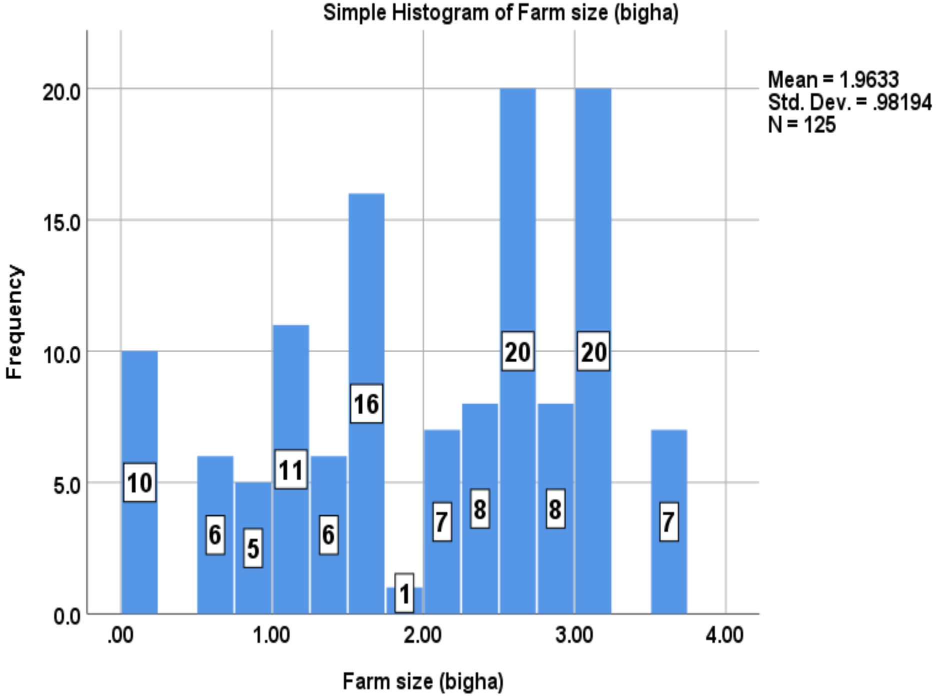


Fig 3: Mean farm size of the respondents stood at 1.9 bigha. Most of the respondents had land within 1.5-3 bighas

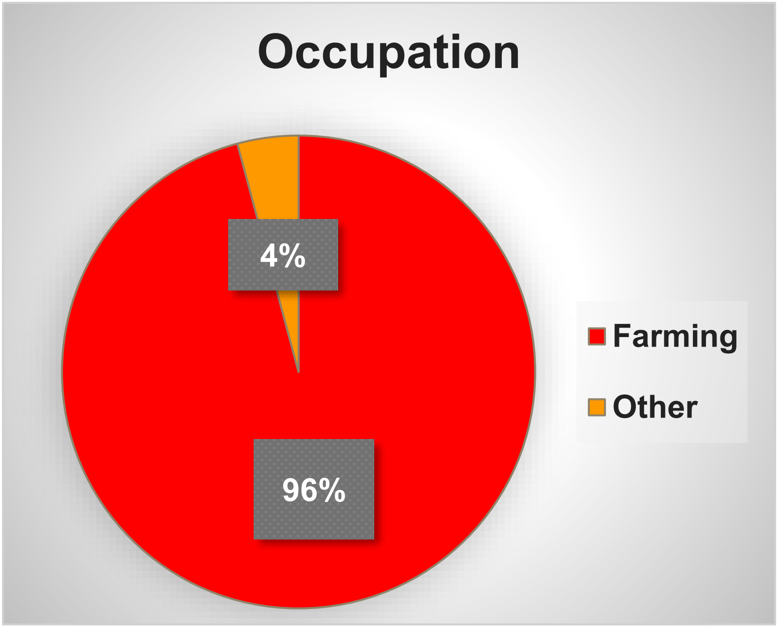


Fig 4: 96% of the respondents were engaged in farming and 4% were engaged in other activities

Objective 1 (Part A)

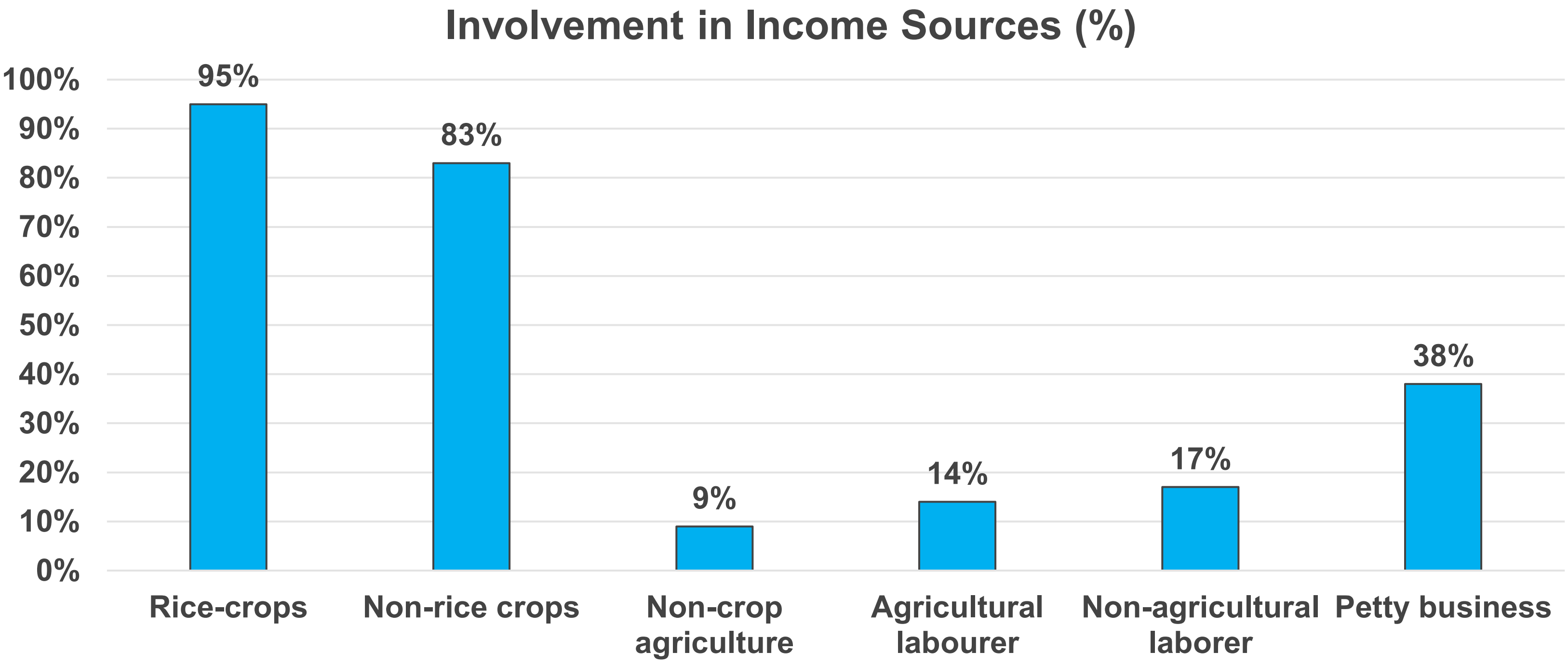


Fig 5: 95% respondents were involved in rice-crop based income sources, 83% in non-rice crops, 9% in non-crop, 13% were agro-labourer, 17% were non-agro labourer and 41% were involved in petty business activities.

Objective 1 (Part A) Simpson Index of Livelihood Diversification (SID) Analysis

Data Analysis

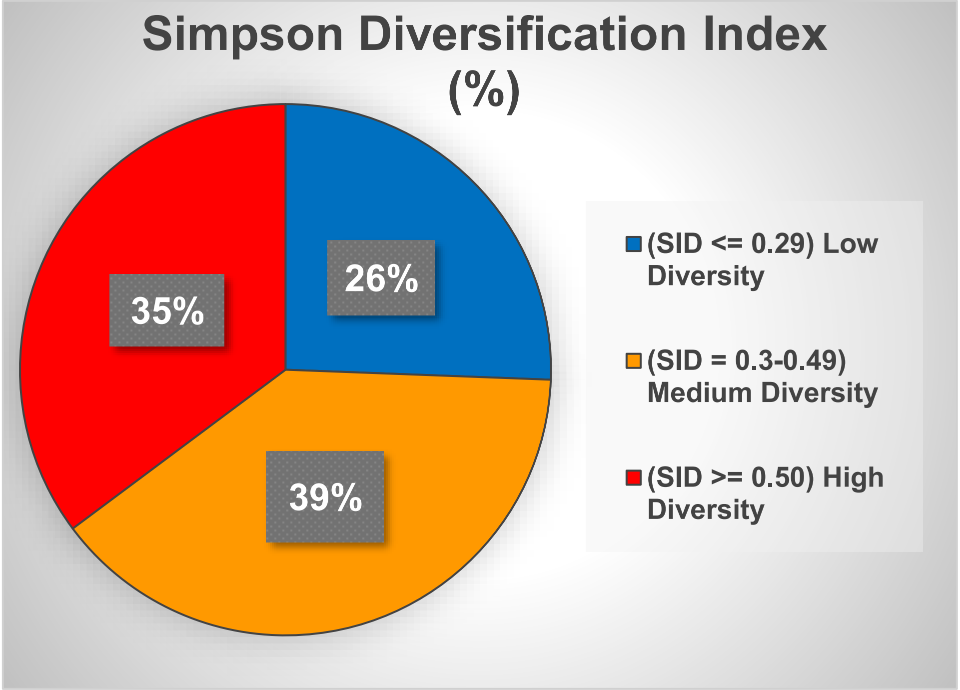


Fig 6: 26% household - Low diversification
39% household - Medium diversification
35% household – High diversification

SID Range	Households	Level of Diversification
<= 0.29	**32**	Low Level of Diversification
0.3-0.49	**49**	Medium Level of Diversification
>= 0.50	**44**	High Level of Diversification

Table 1: No. of households showing diversification

SID value ranges from **0-1**
0 = Indicates **no diversification** and
1 = Indicating **highest** level of diversification

8 (7%) households under low diversification level showed 0 diversification i.e. dependent only one source of income

Objective 1 (Part B) – Determinant Factors of LD Identification

Ordinary Least Square (OLS) Regression

Model Summary				
Model	R	**R Square**	Adjusted R Square	Std. Error of the Estimate
1	.731[a]	**0.535**	0.471	0.115865

Table 2: R square = 53.5% of all variability in SID(dependent variable) is explained by the predictors (independent variables).

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	**Sig.**
1	Regression	1.684	15	0.112	8.361	**.000**[b]
	Residual	1.463	109	0.013		
	Total	3.147	124			
a. Dependent Variable: SID						

Table 3: Anova table describes if the independent variables are good predictor of dependent variable (SID). Here **significance is .000**<Alpha=0.05 which is significant i.e. F(15,109)=8.361, p=0.000

Data Analysis

Objective 1 (Part B)

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-0.683	0.411		-1.663	0.099
	Farming or other activities	-0.151	0.068	-0.187	-2.233	0.028
	Number of family members	0.036	0.014	0.199	2.618	0.010
	Farm size (bigha)	-0.083	0.045	-0.510	-1.853	0.067
	Land ownership (landless/small/medium)	0.109	0.032	0.434	3.425	0.001
	Value of household assets excluding cultivabel land (BDT)	-6.156E-08	0.000	-0.254	-3.016	0.003
	Amount credit received in a year (BDT)	-6.008E-08	0.000	-0.007	-0.079	0.938
	Amount of savings in a year (BDT)	3.498E-06	0.000	0.720	3.136	0.002

Objective 2 – Diversification suggestions for Zero Diversified households

From the respondents **32 households** showed **low** level of livelihood diversification and **8 households** were found **zero diversified**. They rely on a single income source.

Ideas to boost farm income and petty business:

- Livestock products
- Crop products
- Open a farm shop for selling products
- Develop the skills (home-craft)

Help from **local Agencies** to support small business and community enterprises.
They provide:

- Information on Government help for small business
- Professional advisers
- Low-cost loans, grant aid and other finance
- Support for small businesses that are acquiring new information technologies
- Support for business growth and development

Thank you.