



Pastoral Households' Livelihood Diversification Strategies: Evidence from Afar Region, northern Ethiopia

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Introduction

Pastoralism in Afar is facing policy-related and natural pressures such as effects of climate change, ever increasing population, decreased pastureland and increasing sedentarisation. As a result, in response to both the 'pushes' away from the pastoral livelihood and 'pulls' of urban and agricultural life, many pastoralists have been forced to diversify their income generating activities. On this milieu, an increase in concerted efforts by NGOs like Engineers without Border (EWB), Germany, to promote livelihood resilience of Afar people through challenging water scarcity and land management practices has been witnessed in most affected areas like Mille, Arsis.

Objectives

- Identify the current livelihood patterns of the pastoral households who are under pressure.
- Analyze the determinants of household livelihood diversification in the project area.

Methodology

- Randomly selected 99 households (at 20% variability level) out of the 3500 project participants

- 60 questionnaires; 2 Focus Group Discussions
- 10 key informant interviews
- Review of grey literature

- Extent of Livelihood Diversification*: computed using **Simpson Index of Diversity**

$$D = \sum_{i=1}^S \frac{ni(ni-1)}{N(N-1)}$$

Where,

S= number of income sources ;

ni= household income from each activity;

N= household's total annual income

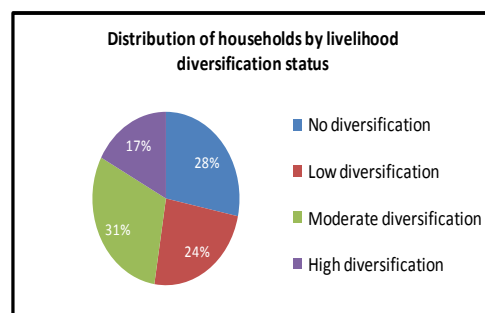
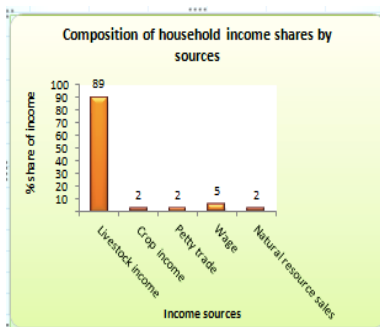
Empirical model: Tobit Regression (ivtobit)

$$Y_i^* = x_i' \beta + \varepsilon_i$$

Where, Y_i is calculated value of Simpson Index of Diversification for each household, and

X_i is explanatory variable expected to influence the dependent variable

Results & Discussion



Tobit Estimates of Determinants of Livelihood Diversification

Explanatory variables (significant)	t-value s
Household size (in Adult Equivalent)	1.81*
Education level of household head	2.94*
Participation in soil & water conservation	4.73**
Credit access & utilization	2.84*
Health status (in days of illness per crop season)	1.68*

Note: *, **, *** indicate significant at 10%, 5%, and 1% probability level, respectively.



Fig. 1. Questionnaire survey in the field

Conclusion

- More than 1/2 (28% and 24%) of the population remain non-diversifying and/or less diversifying.
- Livestock based income still remains the single and most important source of livelihoods, with 89% out of the total income.
- Livestock, crop, petty trade, wage, and sales of natural resources are the income generating activities in the area.
- Participation in soil & water conservation investments, education, credit, household size and household health status are the significant factors.
- Because these are the significant factors, NGOs should focus on them.