



Africa RISING in the Ethiopian Highlands

Ex-Ante Assessment of Potential Market Demands and Commercial Viabilities for Private Forage Seeds Production in Ethiopia

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Background

The feed shortage is one of the key constraints to the livestock sector transformation in Ethiopia limiting its contribution to household income and national economic growth.

Objectives of the study

The main objective of this study is to investigate the potential market demand and profit potential for private sector forage seed production in Ethiopia.

Data Sources

Data from multiple sources were used. First, primary data was collected from a sample of 450 farm households randomly drawn from four regions in Ethiopia: Oromia; Amhara; Southern Nations, Nationalities, and Peoples (SNNP); and Tigray. Second, the financial data for the break-even point (BEP) analysis was collected using forage seed enterprise budgets constructed based on the data obtained from secondary sources.

Empirical Methods

A mix of discrete choice econometric model and break-even-point (BEP) financial model was used to answer a variety of research questions.

Main Results

- Approximately 87% of the sample farmers reported they are aware of improved forage crops of some kind, while only 51% of the sample households reported ever using improved forage crops
- There is significant potential market demand for improved forage seeds among smallholder farmers in Ethiopia. Between 64–81% of the farm households surveyed were willing to buy improved FS, if FS is commercially available in the market
- The econometric analyses **revealed** that one of the most important factors positively influencing farmers' WTP was their awareness of FS.

Conclusion and Policy Implications

- There are significant market demands for different FS. However, for most FS, the amount of WTP is lower than the current market prices offered by NGOs. This indicates that (1) the NGOs and public FS projects have been providing some kind of subsidy to the FS producers; (2) Unstable FS price structure—significant drops in prices of FS could happen if the NGOs stop their participation leading to decrease in incentives for the private sector participation; (3) In a situation where WTP is less than breakeven prices, the private FS producers might find it unprofitable and cease production—especially for alfalfa, Rhodes grass, vetch and oats.

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Table 1 Summary of households' response to WTP questions

Type of forage seed	Willing-to-buy (%)	Mean WTP (ETB/Unit)	WTP as a percentage of current mean market price (%)
Alfalfa	81	291.2	43.5
Rhodes	79	211.4	47.0
Pigeon Pea	71	143.0	57.2
Desho	77	2.7	675.0
Lablab	67	134.6	53.8
Cowpea	64	150.4	60.2
Oats	78	14.3	143.0
Vetch	71	24.4	97.8
Napier Grass	77	1.6	213.0

Source: Survey data.

Table 2 Results of Break-even-point analysis for forage seeds

Type of FS	Current Yield (Kg/ha/year)	WTP (ETB/kg)	Current selling price (ETB/kg)	Break-even point	
				Price (ETB/kg)	Yield (kg/ha/year)
Alfalfa	250	291.2	670.0	520.0	446.4
Rhodes grass	400	211.4	450.0	262.5	496.7
Pigeon Pea	900	143.0	250.0	78.0	489.5
Cowpea	650	150.4	250.0	131.0	565.2
Lablab	1400	134.6	250.0	61.0	631.5
Vetch	700	24.4	25.0	30.0	860.9
Oats	800	14.3	10.0	32.0	1,748.2
Desho	40,000	2.7	0.40	0.63	9,259.3
Napier Grass	1,000,000	1.6	0.75	0.08	48,461.3

Source: Survey data and ILRI(2016).

For alfalfa, Rhodes grass, vetch and oats yield improvement and/or reductions in their costs of production is critical for commercial profitability.

- The variations in the amounts of WTP for different FS indicate the need for targeted supports for different FS: (1) Price support (in the short-run); (2) Promotional support; and (3) Productivity improvements.
- The demand for FS and PM is derived: the functioning of livestock and livestock products markets is also critical

Core partners



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