

## POLICY BRIEF

# Livestock keepers in rural Ethiopia are willing to pay for livestock market facilities

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## Abstract

This brief summarizes the key policy findings of a recent [article](#) published by ICARDA scientists. Based on stated preferences elicited from a sample of 360 randomly selected farm householders, the study revealed that temporary holding barns, toilets, veterinary clinic, watering troughs and feed shops are the facilities small ruminant keepers are most interested in central Ethiopia. In relative terms, the farmers are willing to pay a premium of 1.77, 1.74, 1.23, 1.09, 2.0 and 2.27 times higher for holding barns than for watering troughs, feed shops, veterinary clinics, toilets in the markets, fenced market sheds and unfenced market sheds, respectively. The study recommended due consideration of preferences of the farming communities while designing investments in livestock market facilities for the purpose of increasing market participation and income from livestock.

## Introduction

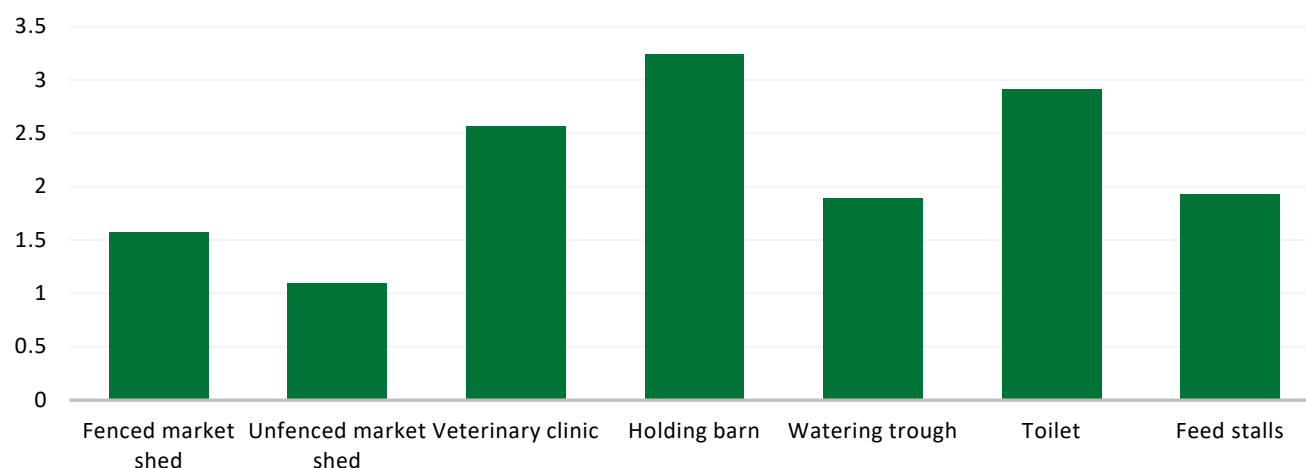
Traditional marketing arrangements, characterized by lack of market facilities and prohibitive transaction costs, can hardly match the complexities arising in the production and consumption systems of the agriculture sector. The general rise in household level income and urbanization, and the resultant change in food consumption patterns have exposed fundamental problems in the agricultural marketing systems in Ethiopia. Specifically, most rural livestock markets in Ethiopia are characterized by poor physical infrastructure, usually with limited or no market facilities (Jabbar and Ayele, 2004; Tefera et al., 2013). They have no feeding lots, watering troughs, loading/unloading ramps, or animal weighing facilities. Accordingly, investments in market infrastructure and facilities have become an important area of intervention to overcome these challenges and to increase livestock keepers' income (Shilpi and Umali-Deininger, 2008).

## Key policy findings

- Poor market infrastructure undermines the role the livestock sector can play in generating more benefit for livestock keepers.
- Farmers are interested in having market sheds, veterinary clinics, holding barns, toilets for marketers, watering troughs, and feed stalls in livestock markets.
- Farmers are willing to pay 3.15, 2.91, 2.56, 1.93, 1.89, 1.56, and 1.09 Birr/animal/market day for holding barns, toilet, veterinary service, feed selling facilities, watering troughs, and for fenced and unfenced market sheds, respectively.
- Investments in market facilities need to be based on the preferences of the farming communities so that they will enhance market participation and income from livestock.

Recognizing the huge and yet unexploited potential of the livestock sector, the Ethiopian government has recently made a commitment to make the marketing system more efficient through development of market facilities (MOA, 2015). In fact, investment in market facilities involves huge resources, and when there is shortage, there is a need to prioritize the investment. In this case, knowledge of farmers' preference for development interventions in market facilities can help prioritizing the investments. Farmers' preference to improved market facilities is essentially acknowledged by their willingness to pay for the different market facilities.

This policy brief is based on the study entitled "Preference and Willingness to Pay for Small Ruminant Market

**Figure 1. Farmers willingness to pay (in Birr/market day) for different market facilities.**

Facilities in the Central Highlands of Ethiopia”. The study was published in the *Journal of International Food & Agribusiness Marketing* (Zelege et al., 2020). Based on a sample of 360 randomly selected households in Menz Gera, Menz Kaya Gebreal and Menz Mamma districts in the central highlands of Ethiopia, the study reported stated preferences and willingness to pay values for livestock market facilities. The study employed choice experiment to elicit preferences and estimated generalized multinomial logit (G-MNL) model to quantify the implicit prices that farmers are willing to pay for selected market facilities.

### Key findings

The econometric model results show that the smallholder farmers are interested in market sheds, veterinary clinics, holding barns, toilets, watering troughs, and feed stalls. The preferences for the services of market facilities are quite heterogeneous, with apparent disparities in priorities among those who live close to the markets and those who live farther away. Heterogeneity in preferences was also observed between households with small and big herds of small ruminants.

The study also revealed that farmers have clear prioritization of the facilities. In order of preference, the facilities of interest are holding barns, toilets for marketers, veterinary service, feed stalls, watering troughs, and market sheds (Figure 1). The WTP estimation shows respondents are willing to pay about Birr 3.15 (about 10 US cents) per small ruminant for using holding barns on a market day. The higher WTP for holding barns is expected due to the blanket taxation of animals that is collected on all animals brought to the market to be sold or to accompany those to be sold. This taxation has always been a source of dissatisfaction to smallholder farmers (Kassie et al., 2019). They are also willing to pay about Birr 2.91 for

toilet, Birr 2.56 for veterinary service, Birr 1.93 for feed selling facilities, Birr 1.89 for watering, and Birr 1.56 and 1.09 for using fenced and unfenced market sheds per animal in a market day, respectively.

### Key lessons learned and way forward

Despite its large population size and considerable contribution to household livelihoods, the livestock sector in Ethiopia is predominantly subsistence-oriented, where its role as a store of wealth is more emphasised than any other role (Kassie et al., 2019). The contribution of the livestock sector, is constrained by inefficient production and marketing systems. Poor market infrastructure, among others, constitutes a hindrance to the production and marketing activities, which undermines the contribution of the sector to enhance the livelihoods of livestock keepers. Not only the current marketing system is inconvenient to buy and sell livestock and livestock products, but also it increases product deterioration and wastage (Kassie et al., 2019; Zelege et al., 2020). It weakens the incentives to have productive behaviour and participate in the market and, hence, reduces farmers’ earnings.

An improvement in the market facilities, along with other market infrastructures, can induce many responses from the farmers. It helps farmers stay longer in the markets both in the rainy and dry seasons. It also reduces the stress the animals experience after hours of trekking without water and feed. The convenience the farmers and the animals experience due to the improved market facilities will ultimately improve farmers’ market participation and performance. Farm households’ interest in and, hence, the willingness to pay for the market facilities is not only for their direct use values, but also for the associated benefits such as reducing illnesses, improving bargaining power and improved income.

Hence, the Ethiopian government shall be encouraged to consider investment in market infrastructure, including market facilities, to address systemic inefficiencies that decrease the benefits and competitiveness of farmers in the market.

## References

- Ismail, J.I. (2014). Influence of market facilities on market participation of maize smallholder farmer in farmer organization's market services in Tanzania: Evidence from Kibaigwa International Grain market. *Global Journal of Biology Agriculture and Health Sciences*, 3(3), 181-189.
- Jabbar, M.A. and Ayele, G. 2004. Livestock Marketing, Food Security and Related Issues in Ethiopia. pp. 145-165. In: Ayele, G., Omamo, S.W. and Gabremadhin, E. (eds.), *The State of Food Security and Agricultural Marketing in Ethiopia. Proceedings of a Policy Forum*. Ethiopian Development Research Institute (EDRI), Addis Ababa, Ethiopia.
- Kassie, G.T., Solomon, R.W., Tokgoz, S., Majeed, F., Yitayih, M. and Rischkowsky, B. 2019. Policy-Induced Price Distortions along the Small Ruminant Value Chains in Ethiopia. *Journal of Agribusiness in Developing and Emerging Economies*, 9 (3): 220-236.

Shilpi, F. and Umali-Deininger, D. (2008). Market Facilities and Agricultural Marketing: Evidence from Tamil Nadu. *Agricultural Economics*, 39, 281-294.

Zelege, F., Kassie, G.T., Haji, J. & Legesse, B., 2020. Preference and Willingness to Pay for Small Ruminant Market Facilities in the Central Highlands of Ethiopia. *Journal of International Food & Agribusiness Marketing*, DOI:10.1080/08974438.2020.1838385

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