



Tropentag, September 16-18, 2026, hybrid conference

“Towards multi-functional agro-ecosystems
promoting climate resilient futures”

Women's participation in the rice value chain and household dietary diversity: Empirical evidence from eastern Uganda

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Abstract

Rural women's engagement in local food systems plays a critical role in sustaining household welfare, especially in developing countries like Uganda. The study explored the underlying factors influencing women's participation in activities related to rice production, processing, and marketing. In addition, the research assessed the dietary diversity status of rice farming households in Eastern Uganda and investigated the association between women's participation in the rice value chain and household dietary diversity. A cross-sectional survey was conducted using a pre-tested structured questionnaire that collected quantitative data from 137 female rice farmers selected with cluster and stratified random sampling methods. Econometric analysis employed the Heckman two-stage model with Seemingly Unrelated Regression (SUR) and Ordinary Least Squares (OLS). The results indicate that while women dominated rice production and processing activities, behavioural selection bias observed in market participation was mainly influenced by household labour availability, saving behaviour, and marital status. Regarding value chain participation intensity, on average, women spent more time on manual rice processing (7.6 hours per day) and production (5.5 hours per day) activities, compared to marketing (1.1 hours per day). Household structure, asset ownership, mobility, and autonomy factors significantly influenced the time allocated to the respective value chain stages. Household dietary outcomes showed that rice farming families consumed moderately diverse diets that were predominantly composed of low-cost starch-based foods primarily produced on the farm. Women's participation in rice marketing was positively linked to higher dietary diversity scores. This study underscores the influence of women's participation in smallholder commercial value chains on household food and nutrition security. Despite women's profound contribution to household welfare, the study highlights the underlying constraints to women's equitable value chain participation. Given the laborious nature of work women undertake, it is essential to allocate affordable labor-saving rice technologies to rural women. Strengthening collective access mechanisms may enhance women's access and utilisation of stage-specific technologies. This would improve value chain performance and contribute to better nutrition outcomes among rural rice farming households in Eastern Uganda.

Keywords: Dietary diversity, Heckman two-stage model, ordinary least squares, Participation, rice value chain, rural women, seemingly unrelated regression, Uganda

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