



Tropentag, September 11-13, 2024, hybrid conference

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Gender equity implications of the adoption of mechanised livestock fodder choppers in Bangladesh’s mixed farming systems

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Abstract

Agricultural mechanisation has the potential to strengthen women’s wellbeing and socio-economic status in agrifood systems. The net welfare effects of mechanisation on women farmers depends on intra-household gender relations which shape women’s ability to seize associated reductions in drudgery and workload, and to influence decisions on the use of agronomic production surplus and income gains. However, the adoption of agricultural mechanisation may also directly influence women’s empowerment and intra-household bargaining processes, especially if gendered roles in management and decision-making are affected by the introduction of agricultural machinery. While gendered adoption determinants and socio-economic implications of the use of mechanisation services at the farm level have received some attention in recent literature, there is little empirical evidence on the impact of agricultural mechanisation on women’s empowerment. In this study, we use data from 758 female and male farmers from Bangladesh to assess the correlates of the adoption of mechanised livestock fodder choppers on gendered time-allocation, participation in decision-making, and control over the use of livestock income. Using matching techniques to account for observed heterogeneity between fodder chopper users and non-users, we find that the use of fodder choppers is associated with time savings in livestock production, most of which is captured by women farmers. Saved time is used for leisure and resting, which may enhance women wellbeing. While we do not observe changes in gendered decision-making arrangements with the introduction of fodder choppers, we do find significant associations with gendered control over the use of livestock income, with husbands claiming more, and wives claiming less influence on the use of livestock income. We conclude that the gendered outcomes of the adoption of fodder choppers is context dependent and may come at the expense of women agency in livestock production.

Keywords: Bangladesh, livestock, mechanisation, women’s empowerment