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An analysis of adoption of crossbred poultry and its impact on well-being among rural poultry-keeping households in Ethiopia

ORKHAN SARIYEV

University of Hohenheim, Inst. of Agric. Sci. in the Tropics (Hans-Ruthenberg-Institute), Germany

Abstract

Crossbred poultry adoption has recently been increasing in Ethiopia. Growing efforts to achieve improved family poultry and its promises signify the importance of adoption and livelihood impact studies of crossbred poultry adoption. Employing the baseline survey data of the second panel Ethiopian Socioeconomic Survey (ESS), this paper studies the determinants of crossbred poultry adoption and its significance for household well-being. The paper tests well-being outcomes of crossbred poultry adopters against that of local breed holders. To deal with endogeneity, methodological approach resorts to matching methods employing Inverse-Probability-Weighted Regression Adjustment (IPWRA) technique. Results show that female poultry managers, constrained in other productive livelihood options, are more likely to adopt crossbred poultry. Households that are relatively wealthier in terms of human resources, assets, access to food, and dwelling conditions are more inclined to adopt crossbred poultry. Access to advisory services, experience with other crossbred animals, and the size of the agricultural land are among other significant determinants of crossbred poultry adoption. Concerning well-being outcomes, crossbred poultry adoption increases egg sales and revenue. The sample does not provide sufficient evidence to conclude any impact on food, non-food consumption, or investment in children’s human capital. Overall, the average flock size and revenue from egg sales are relatively small. Nevertheless, predicted revenue from an extra layer chicken in crossbreed adopting households triples the predicted revenue from egg sales in local breed keeping households. Increasing average flock size twice by crossbred birds could generate an annual revenue equal to at least 10 % of yearly consumption expenditure. These results suggest that flock sizes in rural family poultry production should be increased with more crossbred birds to sustain livelihoods significantly.

Keywords: Crossbreed, Ethiopia, impact, IPWRA, matching, poultry