

Importance of small scale mixed farming enterprises of livestock and poultry diversity in Sri Lanka

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Abstract

Livestock farming is an economic activity scattered throughout the country and contributes in many ways to livelihoods, food security and rural development. Diversity of mixed farming systems is also known to support economic diversity and increase resilience to local or global economic shocks, thereby supporting livelihoods and food security. They can be kept in a wide variety of production environments, including in areas where crops cannot be grown. The objective of this study was to evaluate the importance of diversity of livestock and poultry in rural smallholder livestock farming systems for their income generation. A study was conducted in all provinces to evaluate the importance of mixed farming enterprise among farmers. Data were collected by a random sample of 300 farmers through a questionnaire. Shannon's index was used to determine the importance of different livestock diversity for income generation in the comparison groups. Ordinary Least Square Regression Model was used to determine the impact of livestock diversity on food security and income, respectively, while optimal level of farm enterprise diversification was determined using a linear programming model. Conclusion and application of findings include farmers under low resource endowment can attain a profitable, diverse and nutritious benefit by bringing in farming with low production costs and positive gross margins by having livestock and poultry biodiversity in a farm. Further, small holder farmers need to adopt livestock and avian diversity and improved technology to increase productivity of farm enterprises and assure themselves food security. Supporting the conservation and sustainable use of mixed livestock biodiversity in farms, including through local knowledge and the traditional management practices associated with them, could be lead continue to evolve and meet future needs. A farm plan with few but productive livestock and poultry species in a mixed farming system assures sufficient income and ensures food security.

Keywords: *Biodiversity, Food security, Smallholder farmers*

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