

Status of Productivity and Their Determinants of Peri-urban Animal Farming Units in Selected Veterinary Ranges of Colombo District

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Peri-urban animal farming systems have a greater potential to contribute to the sustainable growth of urban food systems. It strongly interacts with a mix of urban, and rural resources in different ways and at different hierarchy levels. Improving productivity at farm level invariably enhance the supply to the food system. This research intended to; (1) Observe species diversity of the animal farms/mixed farms in selected peri-urban areas, (2) Estimate the total factor productivity (TFP) of those farms, (3) Identify determinants of productivity and (4) Outline the issues, opportunities, constraints of peri-urban animal farming. The TFP relates the output to a bundle of inputs, such as capital, labour, land and intermediate inputs, which were measured in this study using Fisher index. The pretested questionnaire was administered to collect data from a total of 115 farmers, where 50, 35 and 30 from *Homagama*, *Padukka* and *Kosgama* veterinary ranges, respectively. Purposive sampling technique was used to draw farmers into the sample. TFP was calculated by considering the variable inputs, viz: labour, feeding, fuel, veterinary, miscellaneous, and outputs; farm products and animal sales. A base farm (TFP = 1) was selected to compare the level of productivity. The mean TFP values for 101 dairy farmers and for 15 commercial and backyard poultry farmers were 1.76 and 0.90. The range varied between 0.04 to 5.24 (± 0.1) and 0.14 to 1.33 (± 0.08), respectively. Ordinary logistic regression was used to identify the determinants of TFP variation across farms. The results revealed that the inclusion of dhal husk and rice bran into rations, availability of own grassland, distance to the main city, and education level of farmers ($P < 0.05$) explain the difference in TFP value. TFP was not influenced by animal farming experience and income.

Keywords: Animal Farming, Determinant of Productivity, Fisher Index, Peri-urban, Total Factor Productivity

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