



Evaluating flock demography characteristics in indigenous chicken production in a participatory research with smallholder farmers in Kenya

Ndegwa, J. M¹., Mead, R¹., Norrish, P¹., Shepherd, D. D¹., Kimani, C. W¹., Wachira, A. M²., Siamba, D. N³.

¹The University of Reading, International and Rural Development Department (IRDD) and School of Applied Statistics PO Box 237 Reading, RG6 6AR, Reading, UK.

²Kenya Agricultural Research Institute, National Animal Husbandry Research Centre, PO Box 25, Naivasha, Kenya.

³Masinde Muliro University of Science and Technology, School of Agriculture and Veterinary Technology (SAVET)
Corresponding author: Joseph M Ndegwa. Email: jndegwa93@yahoo.com; jmutitu603@gmail.com;
j.n.ndegwa@reading.ac.uk

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1 Abstract

Objectives: This research was carried out to evaluate effects of improved management practices on performance of Kenyan indigenous chickens in relation to flock demography at farm level.

Methodology: The research involved 200 farmers in five regions across three counties (Nyandarua, Laikipia, and Nakuru) in Kenya. Four villages were selected per region and 10 farms in each village. Training and sensitisation meetings, introduction of intervention options (Housing, Feed Supplementation, Vaccination and Deworming), implementation by farmers, and monitoring and evaluation were carried out. Farmers used their own local inputs in implementing the project interventions and recorded various project activities and outputs. The project was monitored over a span of five, 3-months long periods. Results indicate that the average number of farms with records in each village was 8.7 for both interventions and demography characteristics (flock size and its dynamic factors - additions to the flock, losses, sales, consumption and gifts from the flock). Average flock sizes rose from 10 – 20 birds per farm to 20 – 30 over the project period. The flock size trends of farms in all the villages and regions are related to the levels of various flock demography dynamic characteristic. The total additions in all the five regions ranged from 53 (region 5) to 68 (region 2) birds per farm during the 5 periods. Average total reductions were only slightly less (1-5 birds) than total additions in the five regions.

Conclusion and Application: Controlled reductions were real benefits and provide evidence of the resource being made use of as one livelihood strategy. The relatively low level of unplanned reductions is a good indicator of a positive effect of the treatments and the research process generally in improving productivity. Flock size levels alone are not indicative of better performance as lower flock size levels could have been due to high controlled reduction levels. However, flock size and other demography characteristics serve as important determinant factors in defining behaviour of the farms.
