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The Role of Urban Livestock Keeping in Household Food Security in Bamako, Mali

AZIN SADEGHI¹, MEIKE WOLLNI², HAMIDOU NANTOUMÉ³, EVA SCHLECHT¹

¹*University of Kassel / Georg-August Universität Göttingen, Animal Husbandry in the Tropics and Sub-tropics, Germany*

²*Georg-August-Universität Göttingen, Dept. of Agricultural Economics and Rural Development, Germany*

³*Institut d'Economie Rurale (IER), Laboratory of Animal Nutrition (Sotuba), Mali*

Abstract

As the urban population continues to grow, a trend in practicing agriculture, including livestock keeping, has been observed since a few decades both in and within the vicinity of many cities in West Africa. One of the main topics associated with urban agriculture has been the issue of food security. The involvement in urban agriculture can theoretically improve the household's food security through increasing the income as well as enhancing its members' direct access to nutritious food.

The current study aims at accessing the role of livestock keeping in urban and peri-urban settings for household food security status. Data on household food security status as well as livestock-related features were collected for 187 households in urban and peri-urban areas of the Malian capital, Bamako. The household food insecurity status was computed and categorised based on the Household Food Insecurity Access Scale Score (HFIAS) and Household Food Insecurity Access Prevalence (HFIAP).

The descriptive statistics indicate that on average each household comprises 14.93 heads to feed. According to HFIAP, 63.15% of households are food insecure, of which 24.73% fall under the category of moderately food insecure and the rest are mildly food insecure. A moderately food insecure household has to sacrifice quality and occasionally reduce the quantity of the food consumed, whereas a mildly food insecure household worries often about access to adequate food and rarely cannot afford the desired food. On average, a food secure household owned 9.37 tropical livestock units (TLU), which was 2.14 units higher than the average number of TLU owned by mildly food insecure households and 3.46 units more than moderately food insecure households. The data on TLU ownership of households shows over-dispersion with many families owing only few animals and some owing a very large number of animals. A negative binomial regression is conducted to check for possible correlation between HFIAS and TLU ownership. The regression results indicate that the coefficient for logarithm of number of the animals owned by households is significant at $\alpha = 5\%$ level.

The data thus indicates that a household's involvement in livestock keeping does not totally annihilate the threat of food insecurity in Bamako, even though the size of livestock possession (TLU) is positively related to food security.

Keywords: Household food security, tropical livestock unit, urban and peri-urban livestock, West Africa