

A comparison between urban livestock production strategies in Burkina Faso, Mali and Nigeria in West Africa

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Accepted: 29 February 2012 / Published online: 20 March 2012
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Abstract We undertook a comparative analysis of (peri-)urban livestock production strategies across three West African cities. Using a semi-structured questionnaire, livestock-keeping households (HH) were interviewed in Kano/Nigeria (84 HH), Bobo Dioulasso/Burkina Faso (63 HH) and Sikasso/Mali (63 HH). Questions covered livestock species kept, herd sizes and structure, feeds used, manure management, livestock marketing and production constraints. Sheep and goats dominated ($p<0.001$) in Kano (76 and 75 % of HH) compared to Bobo Dioulasso (48 and 40 %) and Sikasso (28 and 40 %), while cattle and poultry were more frequent ($p<0.001$) in Bobo Dioulasso (82 and 69 % of HH) and Sikasso (65 and 79 %) than in Kano (29 and 20 %). Across cities, ruminant feeding relied on grazing and homestead supplementation with fresh grasses, crop residues, cereal brans and cottonseed cake; cereal grains and brans were major ingredients of poultry feeds. Cattle and sheep fetched highest prices in Kano, unit prices for goats and chicken were highest in Sikasso. Across cities there was little association of gardens and livestock,

whereas field cropping and livestock were integrated. There was no relation between the education of the HH head and the adoption of improved management practices ($p>0.05$), but the proportion of HH heads with a long-term experience in UPA activities was higher in Kano and in Bobo Dioulasso than in Sikasso ($p<0.001$). We therefore postulate that the high illiteracy rate among (peri-)urban livestock keepers in West Africa does not threaten the acceptance of improved technologies and innovations supporting the sustainability of their livestock production.

Keywords Cattle · Chicken · Feeding · Health care · Small ruminants · Urban households

Introduction

The mainstay of the economy of most West African countries is agriculture. The contribution of the livestock sector to the agricultural gross domestic product is 49, 15 and 44 % for Nigeria, Burkina Faso and Mali, respectively. While the growth rate of the regional animal production is estimated at 4 % per year, the regional demand for livestock products is expected to increase by >250 % until 2025 as compared to 2005 (SWAC-OECD/ECOWAS 2008). Given the current degree of urbanization of about 20 % and an annual growth rate of the urban population of 5–7 %, an important proportion of the total population of sub-Saharan West Africa will live in cities by the year 2050 (FAO 2011). Agricultural intensification will take place mainly in areas with good infrastructure and well-developed input and commodity markets, such as in and around urban centers (Graefe et al. 2008). Urban agriculture is a widespread practice in West Africa (Kutiwa et al. 2010) but has been neglected for a long time by policy makers. However, during the last two

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