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Classification of Urban and Peri-Urban Livestock Farm Types in Ouagadougou and Tamale

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Abstract

Livestock activities constitute an important part of urban and peri-urban agriculture (UPA). They are however constrained by increasing competition for resources, especially land and fodder, and hence increasing costs. Farmers try to withstand these pressures by intensifying their production. Against this background, SP3 of the UrbanFoodPlus project aims at the quantification of resource use and calculation of resource use efficiencies in UPA livestock systems in Ouagadougou (OUA), Burkina Faso and Tamale (TAM), Ghana. Research started in 2014 with a characterisation of UPA livestock systems, using exhaustive semi-structured interviews with 181 (OUA) and 187 (TAM) livestock keepers. The data was subjected to categorical principle component analysis followed by two-step cluster analysis and descriptive statistics on the resulting farm types. Most farms could be assigned into one of 6 (OUA) and 5 (TAM) livestock farm types. In OUA, most farms operate in peri-urban areas and in TAM in the build-up city zone. Livestock management varies between farm types, because of the different livestock species kept and due to different investments in housing structures and supplement feeds. Higher input use could be observed for the commercial dairy production and commercial pig farming that are both more common in OUA than in TAM. Grazing (ruminants) and scavenging (monogastric animals) is important in both cities, but access to pastures is restricted for those livestock farmers who are located in the centre of the city. Selling livestock is more frequent in OUA than in TAM, where live animal sales across species average 1–2 TLU per farm and year as compared to 5 TLU in OUA. Similarly, daily milk sales average 9 liters (SD 7.8, n=36) on semi-commercial and 47 liters (SD 62.8, n=20) on commercial dairy farms in OUA, but only 5 liters (SD 4.4, n=27) in TAM. Further research will quantify inputs into and outputs from livestock units and determine their quality. Existing models will be parameterised and validated with the collected data to identify strategies of optimised resource use. These will be test-implemented in order to assess their effectiveness, costs and practicability.

Keywords: BMBF-GlobE, milk production, Pig farming, Resource use efficiency, Urban agriculture, UrbanFoodPlus, West Africa

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