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“Filling gaps and removing traps
for sustainable resource management”

Food Security of Dairy and Non-Dairy Farming Households in Northwest Cameroon

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Abstract

Food insecurity and lack of nutritional diversity remain a challenging problem in many central African countries. This study was carried out within the BMBF-funded UrbanFood^{Plus} project and focused on the city of Bamenda in Northwest Cameroon. There, due to market failure and political crisis, the conditions for small-scale urban dairy farming greatly deteriorated since 2016. By comparing urban households (HHs) having dairy cattle and selling milk on the informal market (group I) to urban HHs having dairy cattle but selling no more milk since 2016 (group II) and to urban HHs that sold all dairy cattle after the market failure (group III), it was tested whether owning dairy cows as such, and also selling milk, has an impact on the family's food diversity and food security. Altogether 152 HHs comprising 1,147 individuals were surveyed between March and June 2018. Three sets of questionnaires, namely a 7-day food diary, the standard household food insecurity access scale (HFIAS) questionnaire and a general questionnaire on HH characteristics were used to assess the diversity and frequency of food intake, food insecurity status and demographic and socio-economic HH condition. Based on the acquired information, food consumption score (FCS), a measure of food diversity, and HFIAS, an indicator for food security, were calculated, and related to HH characteristics. FCS revealed that group I had the greatest food diversity, followed by group III, and group II. Likewise, group I was the most food secure according to HFIAS, but group III was less food secure than group II. Both production diversity score (PDS) and number of income sources showed a significant positive correlation with FCS and a negative correlation with HFIAS. According to ordinary least squares (OLS) regression, an HH head with secondary or higher-level education had a significantly negative impact on both the indicators. Diversification of income sources through training on agriculture-related skills, encouragement for dairy farming along with development of dairy infrastructure and diversification of farm activities seem to be crucial to improve the food security status of agriculture-based HHs in Bamenda.

Keywords: Dairy cattle, food diversity, food security, indicators, Northwest Cameroon