

## ABSTRACT

Majority of rural dwellers are small-scale farmers who depend directly on agriculture for their livelihoods, food and nutrition security. However, the diets consumed by small-scale farmers' households are of poor quality contributing to inadequate nutrient intakes. This contributes to increased incidences of malnutrition and morbidity especially among the vulnerable members of small-scale farmers' households. Farm enterprise diversity could help small-scale farmers to access diverse plant and animal source foods. This study sought to investigate the link between farm enterprise diversity and household dietary quality in Makueni and Nyando Sub-Counties. This study used secondary data generated from larger project survey conducted by the International Livestock Research Institute (ILRI) in partnership with Climate Change, Agriculture and Food Security Research Program (CCAFS). The survey was conducted in the months of October, November and December 2016 and targeted a total of 320 small-scale farmers' households. Data was collected using semi-structured questionnaires, was cleaned and analyzed using STATA 14. Descriptive statistics, Ordered Logit and Poisson models were employed during analysis. Simpson's Index and crop and livestock count were used to measure farm enterprise diversity. Household dietary quality was assessed based on 12 food groups recommended by Food and Agricultural Organization (FAO). The findings showed that the mean Simpson's Index was higher in Makueni ( $0.5 \pm 0.2$ ) compared to Nyando ( $0.4 \pm 0.2$ ) at 5% significance level. Farm enterprise diversity was positively influenced by age and education of the household head, land tenure, land size, slope of the land, access to irrigation, number of trainings attended and number of groups household members were engaged in. However, farm enterprise diversity was negatively influenced by access to aid. Overall, mean HDD was  $7.0 \pm 1.3$  with no significant difference between households in Makueni ( $6.9 \pm 1.3$ ) and Nyando ( $7.1 \pm 1.3$ ). Nearly all households (99.4%), consumed cereals followed by spices, condiments and beverages (95.9%), oils and fats (95.9%) and vegetables (95.3%). Except for milk and milk products which was consumed by 83.1% of households, consumption of other animal source foods including meats (12.5%), eggs (6.9%) and fish (11.0%) was notably low among the households. Farm enterprise diversity measure using crop and livestock count had a positive significant effect on household dietary quality at 5% significance level. Therefore, there is need for farmers to be sensitized to not only plant diverse crops and rear livestock species but to also consume them for good health and nutrition

### Keywords

Link Between Farm Enterprise Diversity and Dietary Quality Among Small-Scale Farmers  
Households in Makueni and Nyando Sub-Counties, Kenya