

**INFLUENCE OF POST-HARVEST TECHNOLOGY ON FOOD SECURITY IN NAROK  
EAST SUB-COUNTY, KENYA**

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**Abstract**

Crop yields have decreased globally due to declining investments in research and infrastructure as well as increasing water scarcity which are preconditions for global food security. By the year 2016, an estimated 120,000 people in rural areas and 30,000 in urban centers of Narok County were food insecure. This has attributed to a mismatch in food availability, accessibility and utilization. The purpose of this study was to establish Influence of Post-Harvest Handling on Food Security in Narok East sub-County, Narok County, Kenya which like other counties in the ASAL areas experience cases of food insecurity. The specific objective of the study sought to establish influence of post-harvest handling on food security in Narok East sub-County, Kenya. The study adopted human capability approach. A descriptive research design was adopted by the study. The target population comprised of 25078 households distributed proportionally in the 4 wards and are involved in different farming activities. A sample of 378 household heads was determined using the sample size determination formula by Krejcie and Morgan (1970). Furthermore, 1 sub-county crop officer and 4 ward extension officers were used in the study and hence it was a census. The total number of respondents for the study was 383. Primary data was collected using a questionnaire and an interview guide. Data analysis was done using descriptive statistics of frequencies, percentages and inferential statistics of correlation, ANOVA and regression analysis. Statistical Package for Social Sciences software version 26 and the Excel software were used as data analysis tools for the study. The results was presented using frequency and percentages, tables and charts. The relationship between the variables was tested at a significant level of 0.05. The results show that there is a strongly positive and significant correlation between post-harvest technology and food security in the sub-County ( $r = .606^{**}$  and  $p\text{-value} = 0.000$ ). This implies that the relationship between the variables is very significant hence post-harvest technology is a strong determinant of food security in the study area. The study concludes that the null hypothesis that there is no relationship between post-harvest technology and food security was rejected because the ANOVA model indicated a very significant and statistical relationship between the two variables. The study will be beneficial to the farmers in the ASAL areas who have consistently experienced food insecurity. The study will also benefit the National Government, County Governments and other Non Governmental Organizations in the area of food security as it will provide appropriate data that will be used for policy making.

**Key words:** Arid and Semi-Arid areas, Food security, Post-Harvest Technology,

Narok East sub- County,