

**Evaluating a Homestead Food  
Production and Small Livestock  
Intervention on Household Food  
Insecurity in Turkana County, Kenya:  
A Qualitative Cluster-Randomised  
Trial**

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DOI: <https://doi.org/10.5281/zenodo.18542647>

## | Abstract

Food insecurity is endemic in the arid and semi-arid lands of Kenya, with Turkana County experiencing chronic undernutrition. Homestead food production interventions, which often include small livestock rearing, are promoted to improve dietary diversity. However, qualitative evidence on their real-world impact and acceptability in this context remains limited. This study aimed to explore the lived experiences, perceived impacts, and contextual factors influencing the implementation of a homestead food production and small livestock intervention on household food insecurity in Turkana County. A qualitative study was embedded within a cluster-randomised trial. Purposive sampling was used to select participants from both intervention and control clusters. Data were collected via in-depth interviews and focus group discussions with household heads and community health volunteers. Thematic analysis was employed. Participants in the intervention group reported a perceived reduction in the severity of food insecurity, particularly during dry seasons. A prominent theme was the value of small livestock, such as poultry and goats, as a flexible asset for coping with hunger. Significant challenges were noted, including water scarcity, livestock diseases, and intra-household decision-making concerning food and income use. The intervention was perceived to mitigate food insecurity by providing a more consistent food source and a vital safety net. Its effectiveness is heavily

constrained by the harsh agro-ecological environment and requires integrated support addressing water access and animal health. Future homestead food production programmes in arid and semi-arid lands should be co-designed with communities to prioritise drought-resistant crops and livestock breeds. They must be integrated with strengthened veterinary services, water harvesting initiatives, and nutrition-sensitive social behaviour change communication to address intra-household dynamics. food security, homestead food production, small livestock, qualitative research, arid and semi-arid lands, Kenya This study provides qualitative evidence on the perceived impacts and implementation challenges of an integrated homestead food production model in an arid context, informing the design of more resilient nutrition-sensitive interventions.

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