# MARKET OPPORTUNITY IDENTIFICATION FOR MINOR CROPS FOR FOOD SECURITY THROUGH VALUE CHAIN STUDIES

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## INTRODUCTION

The paper seeks to contribute to improved food security and sustainable natural resource management among small rural farmers through adaptation of agri-food system innovations. Components of food security include food availability, access and utilisation. Availability means that the household has sufficient quantities of food at all times, which can be achieved through production of food and/or purchasing it from the market. Access refers to distribution of the food within the household between men, women and children, once it has been obtained. Lastly, utilisation refers to the nutritional values of the food consumed, taking in consideration the human body requirements of proteins, carbohydrates and vitamins.



### Objective

To analyse farmers' food systems and identify innovations for agricultural production and natural resource management for food security among rural small farmers.

### Methodology

A survey was conducted covering 360 respondents from the districts of Tororo, Mukono and Ntungamo, representing food insecure, moderately insecure and secure districts, using a semi-structured questionnaire. Focus group discussions were conducted with mixed groups to identify local innovations to cope with food insufficiency. The innovative strategies were examined for their contribution to sustainable agriculture, food security and natural resource management and comparative analysis in the different areas was undertaken and the best practices identified for scaling-up.

## RESULTS AND DISCUSSIONS

The results revealed the causes of food insecurity as access to little land and poor crop management; lack of money to buy food resulting from low production surplus for sale and low food on the market, due to poor marketing infrastructures. Vulnerable households included the poor, youth and elderly, the sick and the disabled, large families, those with insufficient land, lazy and alcoholic members and family instability.

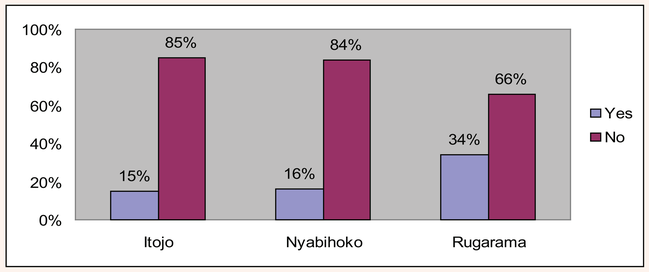



**Chart 1: H ouseholds where p ersons r eceived cash for work, Ntungamo District**

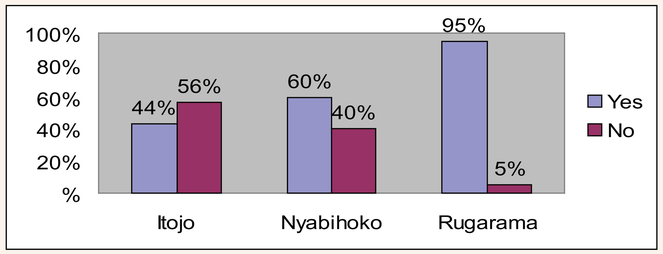



**Chart 2: F armers w ho k ept livestock in l ast 1 year, Ntungamo District**

Innovations that communities used for agricultural production, natural resource management and food security were as follows:

- Strengthening cash income sources for households through taking up of paid employment in such activities as farm labour, trading in farm produce or teaching.
- Participation in growing the main crops of the area during the main seasons, because agriculture is the backbone of the rural economy and other income sources are limited.
- Improving access to more land, to address the problem of land shortages, by renting or borrowing land from parents, relatives and friends.
- Improving land preparation beyond manual methods by making use of oxen and ploughs, acquired through group arrangements.
- Improving access to seeds, both indigenous and improved, through proper post-harvest handling, purchasing from the shops or obtaining them from Government sources.
- Improving soil conditions to enhance productivity by applying manure and compost.
- Promoting important indigenous minor crops which are important food sources and also income earning.
- Adapting important post-harvest handling techniques such as drying, sorting and storing to maintain quality of crops and improve their shelf life.
- Promoting livestock ownership, notably chicken and goats, which could be sold to buy food during periods of poor crop yields.
- Improving water and environment conservation, through application of mulching, terraces and crop rotation.
- Promoting ownership of productive assets, such as bicycle, ox-cart, mobile phone and radio to improve productivity and marketing of crops.
- Promoting membership of groups, to enable farmers access extension services, market and credit.

## CONCLUSION AND RECOMMENDATIONS

Rural small farmers need to be aware of the frequent danger of being hit by food insecurity. This may be as a result of low food production due to ecological and social factors, limited financial resources to buy food or lack of food on the market. When food insecurity looms, there are signs that farmers can recognise to take the necessary precautions. There are mechanisms for farmers not only to cope with situations of food insecurity but to respond to the factors that may result in food insecurity, including limited access and poor quality seed, soil degradation, climate change, inadequate farming skills and poor market access. It is recommended that rural small farmers select and apply a few of the key adaptation methods in order to ward off food insecurity in their households.

## ACKNOWLEDGEMENT

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