

# Food, Nutrition and Health Security Research to Improve Lives & Engage Markets



## Farming Systems Analysis in Tanzania

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# Food, Nutrition and Health Security

## ACIAR Project FSC/2012/023

“Strengthening food and nutrition security through family poultry and crop integration in Tanzania and Zambia”

**Aim:** To **reduce childhood under nutrition** by improving **food and nutrition security at the household level** through strengthening crop and family poultry value chain integration

- › This project unique in linking agricultural R&D with human health outcomes
- › Uses a systems/multidisciplinary approach
- › Focused on production systems under the control of women



# Food, Nutrition and Health Security

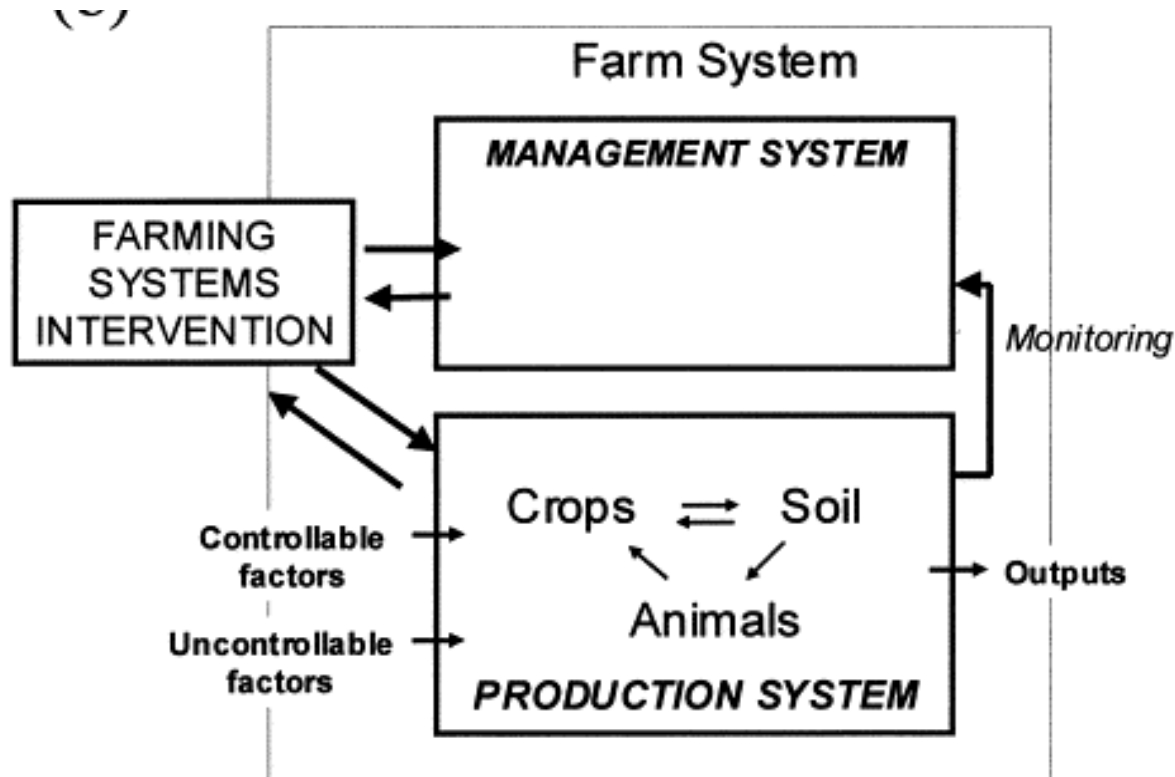


- › 80% of Tanzanians live in rural areas
- › Agriculture is primary means of livelihood
- › Agriculture accounts for 25% GDP, 24% exports and employs 75% of the population
- › Total rainfall in this region is about 600 mm with February being the wettest month

Study Sites **Sanza** and **Majiri** Wards

# Food, Nutrition and Health Security

## Understanding the Farming System



A farming systems framework conveying a farm as a purposeful, systems approach managed system. Monitoring and adjustment of the system in the form of a farming systems intervention links the production and management systems (adapted from Sorrensen and Kristensen, 1992, sourced from Keating and McCown 2001).



# Food, Nutrition and Health Security

## Breakdown of the FSA Questionnaire -12 sections

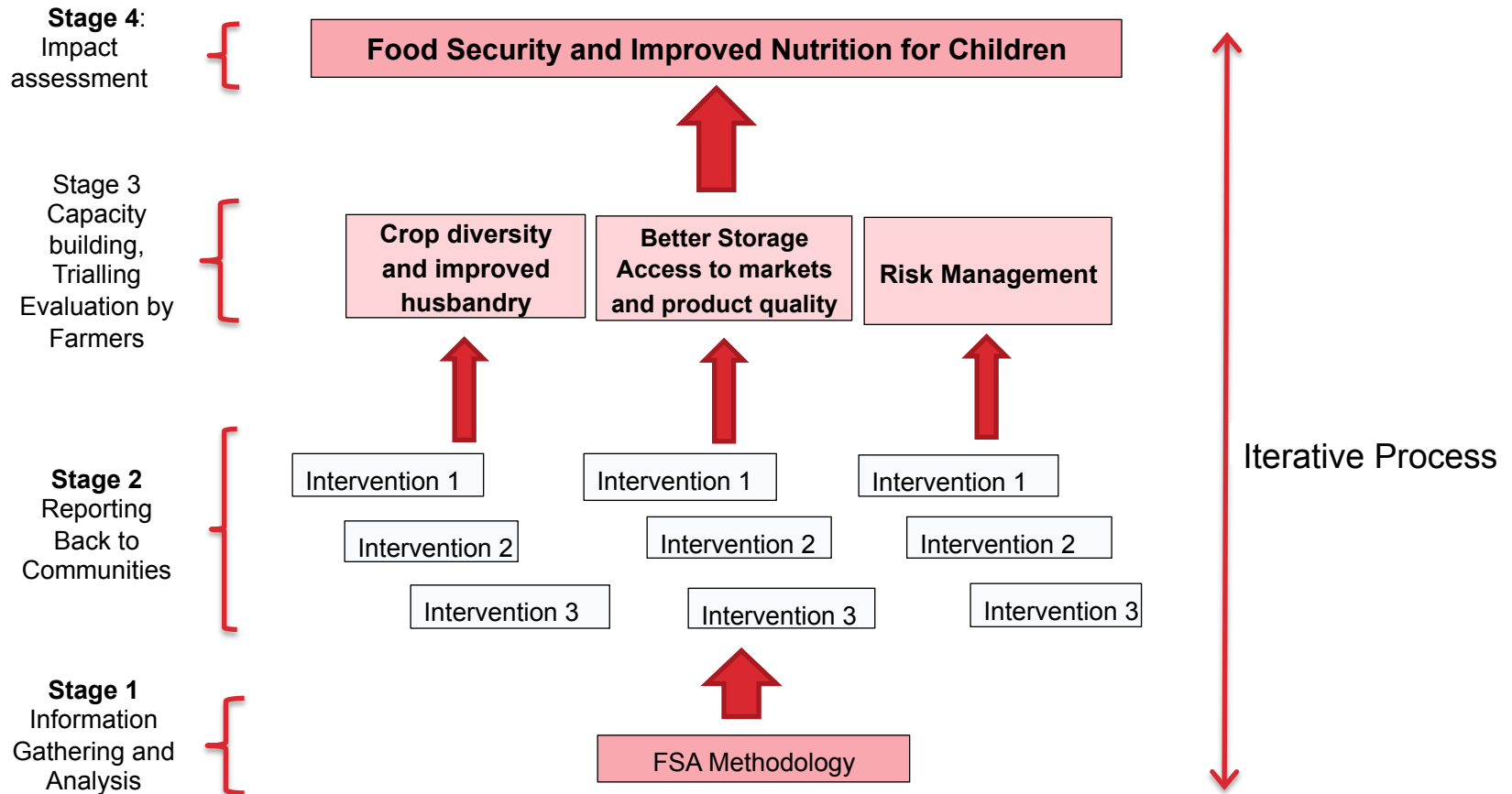
- › Household data
- › Housing, access to markets
- › Access to agricultural information
- › Household Assets
- › Household Food Security
- › Farm Characteristics e.g. land area, crops, yields etc, labour and other inputs, source of seed, problems
- › Crop sales, what, how much where price, storage, what, how much, losses
- › Perception of 2014 growing season
- › Risks and how to deal with it



Hammer milled maize meal in village

# Food, Nutrition and Health Security

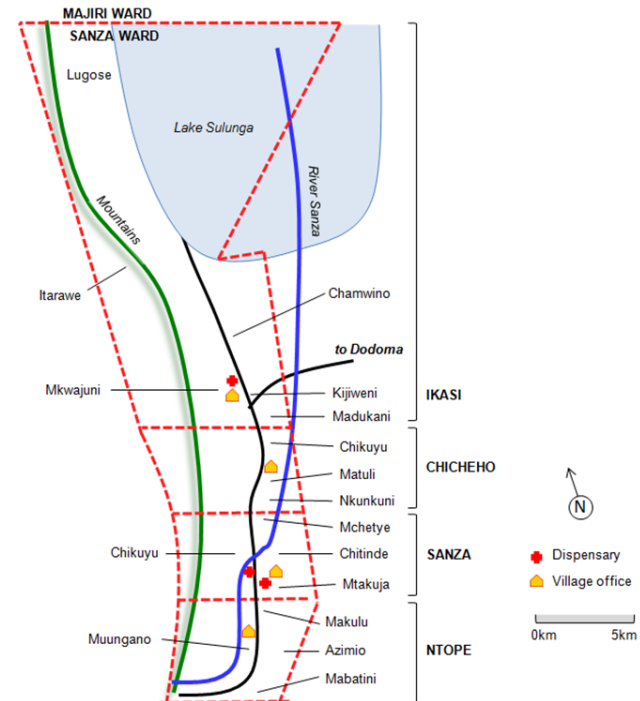
## Flow Diagram of Crop Activities



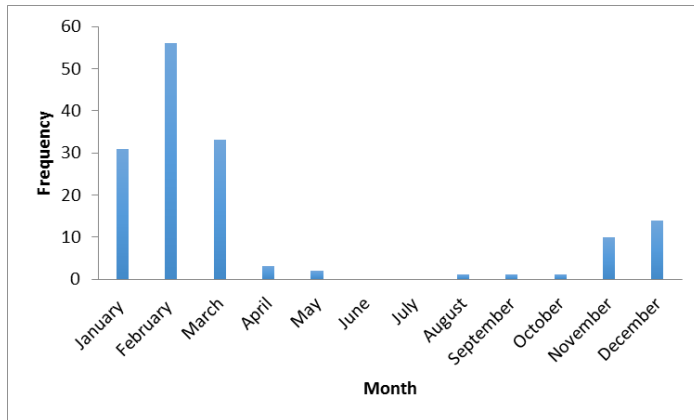
## Survey Sanza Ward



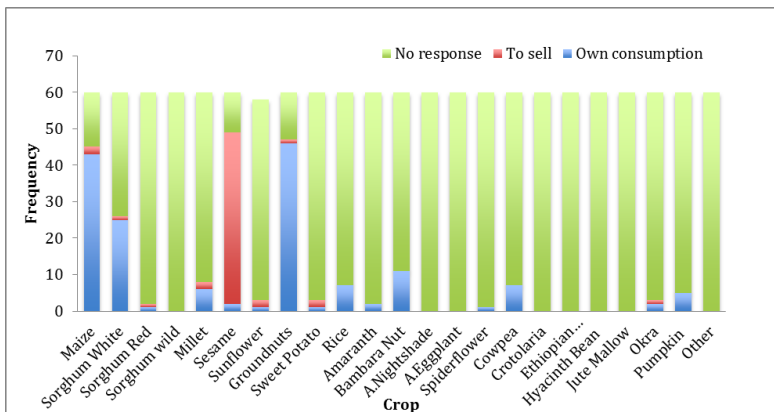
- › 60 participants- all part of the baseline survey to enable cross checking of demographics



# Food, Nutrition and Health Security



Months of food shortage 2014



Crops grown

## Key food groups for which there is a shortage

- 30% meat
- 40% dairy
- 43% grains
- 66% fruit
- 40% vegetables
- 35% goundnuts

## Subsistence crops

- Maize
- Sorghum
- Millet
- Groundnuts
- Rice
- Bambara Nut
- Pumpkin

## Crops to Sell

- Sesame
- Maize
- Sunflower
- Millet
- Sweet Potato
- Okra



# Food, Nutrition and Health Security

## 1. FSA Feedback



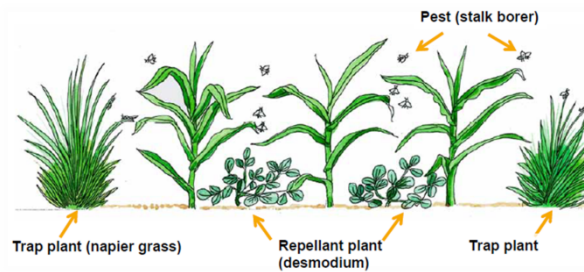
## 2. Community Solutions



## 3. Priority Setting



## 4. Possible interventions



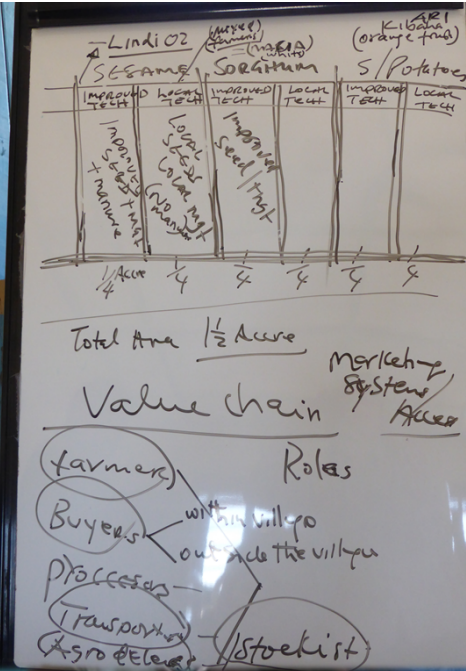


# Food, Nutrition and Health Security

## Agreed Initial Interventions – Trials begin Dec 2015



Manure



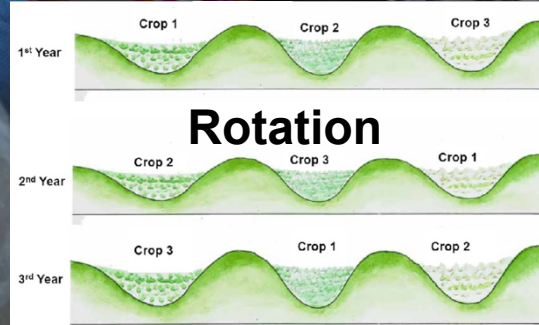
Drying & Storage



Nutritious Vegetables



Pulses



## What are our desired outcomes?

- › Increase household availability and access to nutritious food from own production
- › Increase income from sale of product or paid work
- › Empower women to make decisions in allocation of food, health and care within the household
- › Improve women and children's nutritional health by providing a range of nutrient food groups
- › Improve efficiency of poultry and cropping value chains





# Participants from Checheho and Ikasi Villages



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- › Said Kombe                 Mikocheni Agricultural Research Institute
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