



COLLABORATIVE
CROP RESEARCH
PROGRAM

MCKNIGHT FOUNDATION



FRN-based community phytosanitation initiative for the control of cassava virus diseases in Bukedea district, Eastern Uganda

Norah Asiyo
Deogracious Opolot

Presentation on 28th/05/2019
BUKEDEA UGANDA



Presentation Outline

COLLABORATIVE
CROP RESEARCH
PROGRAM

McKNIGHT FOUNDATION

1) Project Overview

- ❖ History
- ❖ Topic
- ❖ Purpose Summary Description

2) Structure

- ❖ Farmers,
- ❖ Partners

3) Research Agenda

- ❖ AEI topic

4) Learning Agenda

5) Tools and Methods



Background and Context

COLLABORATIVE
CROP RESEARCH
PROGRAM

MCKNIGHT FOUNDATION

Cassava is a staple crop in Eastern Uganda

- Provides food, Income
- Potential raw material for Industries
- Measure of household food security status of Household head

Recently, Yield and Volumes produced declined yet acreage increased

- Volumes declined from 800 MT in 2004 to about 300MT IN 2016
- Area increased from 400,000ha in 2004 to 850,000ha in 2016

Poor crop management practices and technologies and weak market linkages were envisaged to be cause hence;

- Testing of Ridges Vs Flat Planting
- Strengthening of Market Linkages

Background and Context

During research process, It was discovered that major challenge was,

- Cassava Mosaic Disease (CMD) and Cassava Brown Streak Disease (CBSD)



Exercabated by;

- Limited Knowledge on disease
- Increased abundance of whiteflies
- No visible symptoms of CBSD
- Cultural practices
- Farmer mindset(Reluctance to Uproot)





Background and Context

COLLABORATIVE
CROP RESEARCH
PROGRAM

MCKNIGHT FOUNDATION

In addition;

- Weak surveillance and disease inspection mechanisms
- Limited collaboration among various institutions mandated to provide agricultural services like research and government.
- Farmers unwilling to give up their local varieties)

Perpetuated the problem

After Vigorous consultation and drawing lessons from different stakeholders;

- Community seed in Tanzania and Basics Project from Nigeria, -
- **a project was proposed**



Summary Description of Project

COLLABORATIVE
CROP RESEARCH
PROGRAM

MCKNIGHT FOUNDATION

- 1 Address issues of initial access to adequate clean planting material.
- 2 Promote collective community buy-in achieved through massive awareness campaigns and community sensitization
- 3 Careful introduction of cassava varieties widely adopted by community
- 4 Combination of crop management and virus management practices in implementation process
- 5 Community taskforce in partnership with local government to develop community by-laws restricting movement of stems and monitoring of fields.



Objectives

COLLABORATIVE
CROP RESEARCH
PROGRAM

MCKNIGHT FOUNDATION

Main Objective

increase cassava productivity and incomes of fellow smallholder farmers in Teso Sub region through sustainable and inclusive access to improved farmer preferred virus cassava seed

Specific Objectives

1) Increase awareness on the benefits of virus free cassava planting materials

2) Enhance sustainable access to quality and clean planting materials of farmer preferred varieties

3) Develop community-based mechanisms for inspection and monitoring.

4) Establish certified community commercial seed producers and strengthen actor interaction and link markets linkages



Outputs

Output one:

Awareness on the benefits of disease free planting materials and the consequences of not using them
Increased

Output three:

Community based mechanisms for inspection, surveillance and monitoring of viral diseases of cassava developed

Output Two:

Sustainable access to quality and clean planting cassava materials of farmer preferred varieties enhanced

Output four:

Community seed multipliers and the different actors in cassava seed value chain interactions established strengthened



Structure

COLLABORATIVE
CROP RESEARCH
PROGRAM

McKNIGHT FOUNDATION

Partners and Partnerships

- **1) Makerere University Agricultural Research Institute Kabanyolo /Senai Technologies.**
 - Provide technical guidance in the research process and will also help provide clean planting materials
 - Link MAAIF crop inspectors who will be responsible for certifying community-based seed gardens
 - Capture and register with the Cassava CARP app



Partners and Partnerships

COLLABORATIVE
CROP RESEARCH
PROGRAM

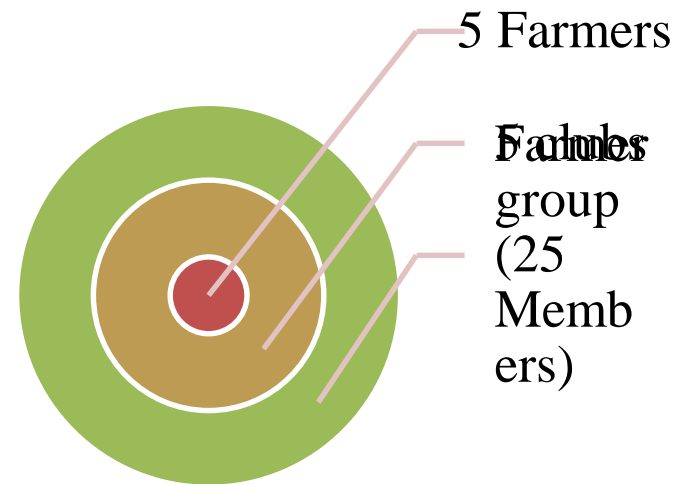
McKNIGHT FOUNDATION

- **2) Bukedea and Kumi district local governments**
 - Develop ordinances on cassava seed transportation and regulating movement of stems.
 - Form part of the enforcement team at village levels
- 3) International partners IITA (Dr James Legg)**
 - Provide technical backstopping
- 4) Farmer groups**

Direct beneficiaries and key decision makers in the project

Structure and Partnership

- The farmer groups are organized in 4H model
- Where 5 farmers club and 5 clubs form a farmer groups
- Each farmer group has Key Farmer Trainer.
- Groups are part and parcel of decision making
- It is these farmer groups which form the FRN,
- Currently 25 groups out of 100 are directly involved





Research Agenda

COLLABORATIVE
CROP RESEARCH
PROGRAM

McKNIGHT FOUNDATION

We recognize that this Research Process is Complex

- Cause-effect relationship is complex
- Farmer is most important stakeholder
- Increasing demand for outcomes rather than outputs,

As such Therefore focus is on following AEI elements

Diversity

- 3 Cassava Varieties have been cleaned

Synergy

- Promoting Partnership, Cooperation, good governance (KFTs, Farmer groups)

Human and social values

- Consider Farmers as most important
- Adaptive learning



Tools and Methods for implementation

- **Awareness campaigns-**
 - Mass media/Main stream media
 - Online platforms (Social media, Internet)
 - Politicians form part of implementation process
- **Skilling and training guides** to serve as trainers of trainers (TOT) for each group on use of GPS for
 - Surveillance,
 - Symptoms identification using phones and other Apps,
 - Business skills for the seed multipliers.



Tools and Methods

COLLABORATIVE
CROP RESEARCH
PROGRAM

McKNIGHT FOUNDATION

- **Dialogue education approaches**
 - involve shared learning -ensures transformative learning and mutual trust and sustainable impact
- **Cross learning visits**
 - Intra and inter-group exchange visits
 - Mainly to promote local innovation and Knowledge co-creation
- **Demonstrations experiments**
 - Field Demos
 - Farmer Field Schools
- **Adaptive Learning**
 - Systems thinking



Tools and Methods

COLLABORATIVE
CROP RESEARCH
PROGRAM

McKNIGHT FOUNDATION

- **Local taskforces is used for surveillance and monitoring**
 - Hence build and strengthen synergies
 - Create opportunities for scaling-up and sustainability
- **Integrated monitoring and evaluation is used for tracking progress**
 - Regular monitoring
 - All staff and farmers are part of monitoring



Challenges

COLLABORATIVE
CROP RESEARCH
PROGRAM

McKNIGHT FOUNDATION

- Time spend understanding and conceptualizing the research process
- Delayed Rains affecting start of implementation of some activities

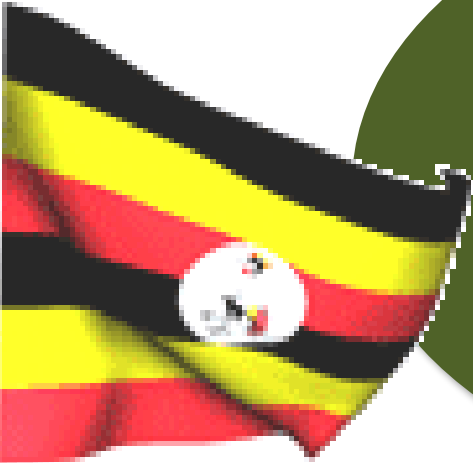


Lessons from Research

COLLABORATIVE
CROP RESEARCH
PROGRAM

McKNIGHT FOUNDATION

- Research is complex and requires systems thinking and adaptive learning
- There is paradigm shift with increasing demand for Outcomes rather than outputs by farmers
- Allow inclusive experimentation for possible errors are part of a learning process
- Every stakeholder is very important and has sense of ownership



THANK YOU!
EYALAMA
NOI
ASANTE SANA



COLLABORATIVE
CROP RESEARCH
PROGRAM

MCKNIGHT FOUNDATION