

## Cassava Applied Research for Food Security in Northern Uganda

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### Consortium Members

Oxfam



### Cassava: Strategic Food Security Crop

- 2nd most important staple crop, providing a cheap source of calories for both rural and urban communities
- High yields per unit of land relative to other crops, important for food security and income generation
- Resilient to drought and low fertility soils vs other staples
- 21 varieties released by NARO to-date
- Viral diseases and farmers' lack of access to improved varieties are among the major constraints to production
- Farmers' access to seed of improved varieties, new knowledge poor in northern Uganda, due to insecurity and cassava virus disease epidemics in recent decades
- These factors contributed to a high rate of food insecurity in northern Uganda and up to 59% of its population in the recent past have been food and energy deficient

### Cassava Applied Research Project

- Aims to boost cassava production, utilisation and improve market access for farmers in northern Uganda
- Specific objectives are to;
  - evaluate near-release cassava genotypes together with farmers
  - Increase farmers' knowledge on cassava disease management
  - increase farmers' access to quality cassava planting materials
  - improve quality of cassava products for better markets
- Co-creation approach: implementers and 12 farmers groups jointly working to develop the cassava value chain. Each group hosts a demonstration plot, field trial and multiplication garden.
- Anticipated impact: **Improved food and income security situation of 2,500 direct beneficiaries (60% women) in the districts of Oyam and Pader in Northern Uganda by 2018.**

### Cassava Applied Research Project

#### Expected outputs

- New varieties selected by farmers
- New knowledge acquired and applied by farmers
- Farmer access to quality cassava planting materials increased
- Farmers producing quality cassava and cassava products

#### Outcomes expected from the project

- Uptake of new varieties
- Increase in farm level cassava production
- Increase in farm level cassava processing
- Increase in number and quality of cassava processed products on the market

### Participatory variety selection to enhance adoption

- Approach provides choices of varieties to farmers for increasing production in specific agro-ecologies.
- 4 near release genotypes, 2 released varieties (but unavailable in the area) and 1 local cultivar tested on-farm with participation of farmers
- Thus, 7 genotypes evaluated at each of 6 locations in 2 districts (Pader and Oyam)
- 342 farmers (181 males, 161 females) participated in site selection, land preparation, material selection & planting
- **Evaluation process:** Farmers assess genotypes for germination, growth characteristics, pest & disease resistance, yield, cooking quality and taste to identify those with desired characteristics

### Participatory variety selection to enhance adoption



Participatory monitoring of a variety selection trial in Oyam, December 2016

- **4 near release genotypes:** Mkumba, Orera, Tajirika, F10
- **2 recently released varieties:** NASE 19, NAROCASS1
- **Local checks:** Nyaraboke (in Oyam), Jaia and Bao (in Pader)

### Knowledge & access to quality seed to increase production

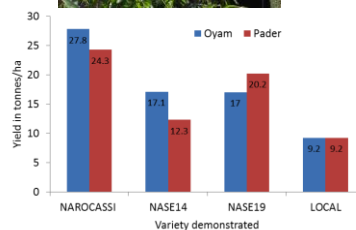
- **12** demonstration gardens of **2** improved varieties planted to serve as community learning centers on best cassava agronomic practices and disease management
- **12** multiplication gardens each **1 acre planted with 3** improved varieties - NASE14, NASE19 and NAROCASS1 to serve as source of quality planting material of improved varieties for the communities.
- From each acre the expected harvest is a minimum of **21,000 stem cuttings**, enough to plant **5 new acres** by the farmers.



### Knowledge & access to quality seed to increase production



A TOT training at Ngetta ZARDI, December 2016



### Challenges and Opportunities

- Emergence/re-emergence of pests and diseases
- Climate change effects
- Lack of cassava policy limits cassava value chain development
- Increased interest from industries to use cassava as a raw material for commercial products
- Increased demand for cassava planting materials motivates farmers to become cassava seed entrepreneurs.
- Cassava is a priority crop by government for the whole country (Active cassava research programme)