

- A carbohydrate root crop staple
- Vegetatively propagated through stem cuttings
- In South, East and Central Africa over 90% is consumed on-farm, or sold at local markets for local consumption (boil and eat) (flour – ugali)
- Two major virus diseases have dominated breeding efforts:
 - cassava mosaic disease (CMD)
 - cassava brown streak disease (CBSD)



- CMD pandemic in late 1980s, early 1990s, with epicenter in Uganda drove adoption of improved CMD resistant varieties
- Food security was key driver for adoption
- Early CMD-resistant varieties (Nase1, 2 and 3) for ugali not fresh consumption
- As pandemic subsided there was a small resurgence in some of the previously favoured local varieties, such as Ebwanateraka.
- IITA established cassava work in Uganda in 1995 with introduction of thousands of botanical seed from Nigeria. Selections were made and MM series of varieties was developed.
- Distributed and evaluated regionally through EARRNET.
- TMEs and MMs replaced the fresh-cook local varieties
- Used on-farm trials to hasten evaluation and meet farmer preferences
- GLCI adopted participatory varietal selection (PVS) as an approach to provide farmers with choices of varieties
- Over time, many varieties with different quality traits have been introduced, and over time, farmers have found resistant varieties that they like.
- In future, it would be good to have more targeting of quality traits, so the process of farmers getting the varieties they like is less random.

Consumed fresh (cooked):

- Biotic and abiotic stresses
- Taste ('sweet', low cyanogenic glycoside)
- High dry matter
- Yield
- 'Mealiness'

'Ugali':

- Biotic and abiotic stresses
- Taste ('sweet', low cyanogenic glycoside)
- High dry matter
- Yield

Starch production (West Africa):

- Biotic and abiotic stresses
- Yield
- Starch quantity and quality

- Time to cook
- Early maturity

Food security:

- Late maturing

Nutritionally enhanced:

- Pro-Vit A

- **Examples from Tanzania:**

- Kiroba - officially released for coastal lowlands

- Most important commercial variety for fresh market supplying Dar es Salaam mainly from Mkuranga and Rufiji districts
 - Not acceptable in Kisarawe District (also coastal and supplies Dar fresh market) as perceived to be bitter, had to be replaced by less CBSD resistant but sweeter variety, 'Rasta'
 - Bitterness increased with drought and soils lacking K

- TMS4(2)1425 (Nigeria) in Lake Zone:

- Poor adoption due to poor 'ugali' quality despite excellent CMD resistance and high yield

- **Examples from Uganda** (Ntawuruhunga et al. 2013)

Surveys – Uganda

1. Baseline survey by Cassava Regional Center of Excellence (CRCoE), NaCRRI, Uganda (2011)
2. Monitoring and diagnostic survey of CMD in Uganda undertaken by Crop Crisis Control Project (2007).

Survey conducted in 2007 in 493 farmers fields in 26 districts in Uganda showed 41.5% of primary variety was improved CMD resistant variety.

Table 1: The most widely adopted improved varieties in Uganda

Name	Bred by	Distribution	Use
TME14	IITA	Widely	Fresh consumption
TMS30752 (Nase 3)	IITA	Kumi and Soroti Districts	Ugali
MM96/4271 (Nase 14)	IITA	Widely	
I92/0057 (Akena)	IITA		
I92/0067 (Omongole)	IITA		
TME204	IITA	Now abandoned	cooking



Thank you!

