



Technologies for African  
Agricultural Transformation

# West Africa Technology Fair: Sustaining Momentum and Mainstreaming Technology towards Agricultural Transformation

25 - 29 October 2021, Dakar, Senegal

**TAAT - ORANGE FLESHED SWEETPOTATO (OFSP) COMPACT**

**Sarma Mallubhotla**

**Joyce Maru**

**Paul Demo**

**& Country Teams**

**International Potato Center (CIP)**  
**Nairobi, Kenya**



**CIP**  
INTERNATIONAL  
POTATO CENTER



**CGIAR**

# OFSP and its value in food systems

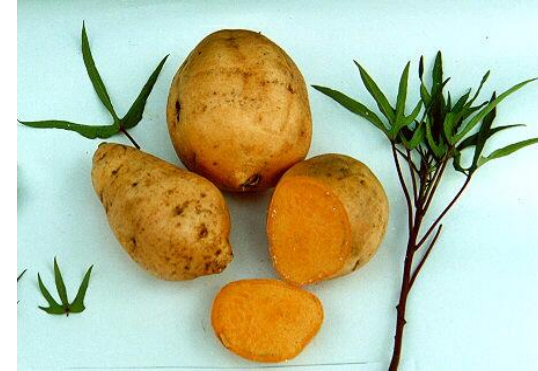


**CIP**  
INTERNATIONAL  
POTATO CENTER

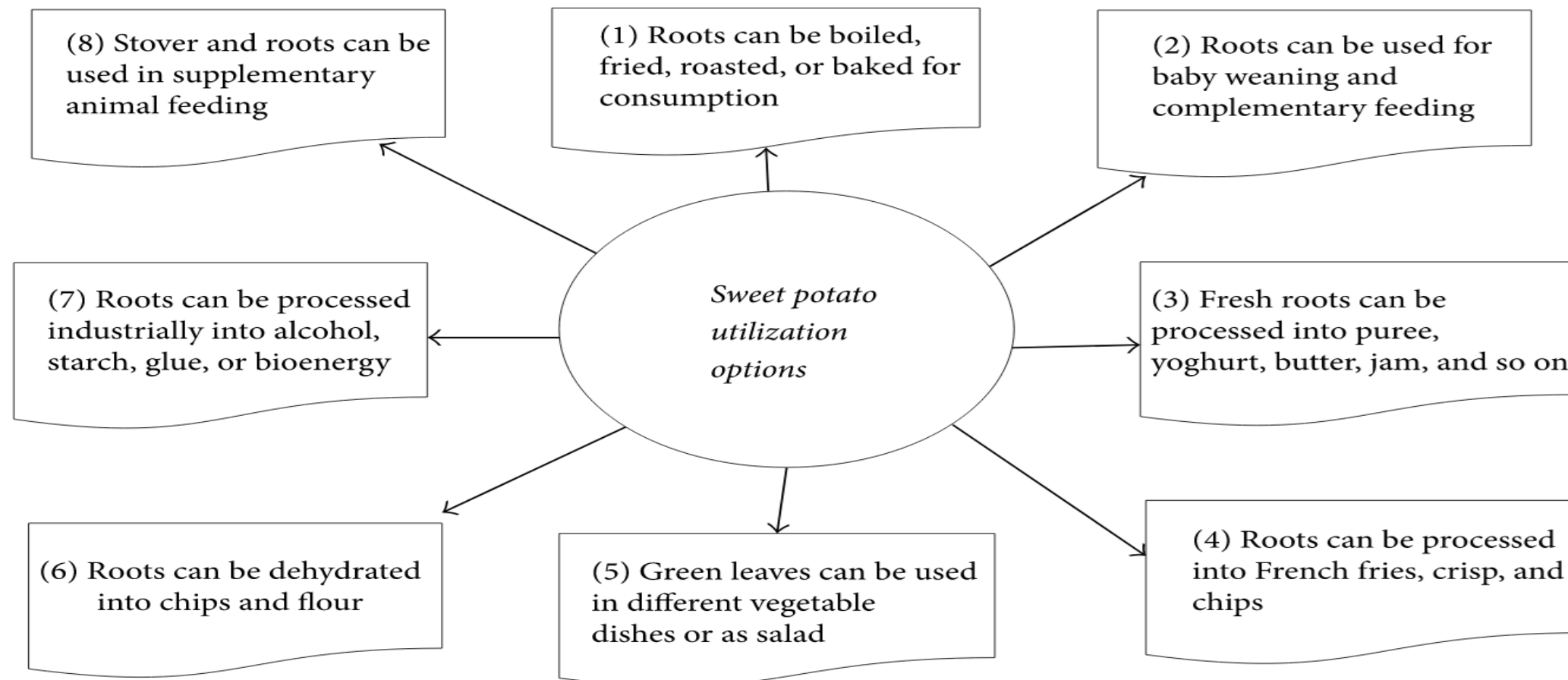


Technologies for African  
Agricultural Transformation

- ✓ Grows in a wide range of altitudes and environments
- ✓ It is a hardy and climate resilient crop, survives during drought or floods than most other food crops
- ✓ Early maturing (3-4 months)
- ✓ Reasonable yields achieved from sweetpotato without using fertilizers compared to grain crops
- ✓ OFSP - the most successful biofortified staple food in addressing malnutrition sustainably. It is rich in  $\beta$ -carotene, a precursor for vitamin A.



# Options for utilizing various parts of OFSP



# Introduction of the Compact



**CIP**  
INTERNATIONAL  
POTATO CENTER



Implemented in **5** Countries: NIGERIA, UGANDA, KENYA, MALAWI and MOZAMBIQUE

Aims to scale up sweetpotato production, processing and marketing

Collaborated with other compacts: Water & Irrigation; Youth; Capacity Development

## **Objectives:**

- Increasing productivity and production of OFSP among smallholder and large-scale farmers.
- Improving income from sale of fresh OFSP roots and processed OFSP products, and from employment generated along the value chain
- Improving income from production and utilization of sweetpotato-based silage to support small to medium scale livestock production.

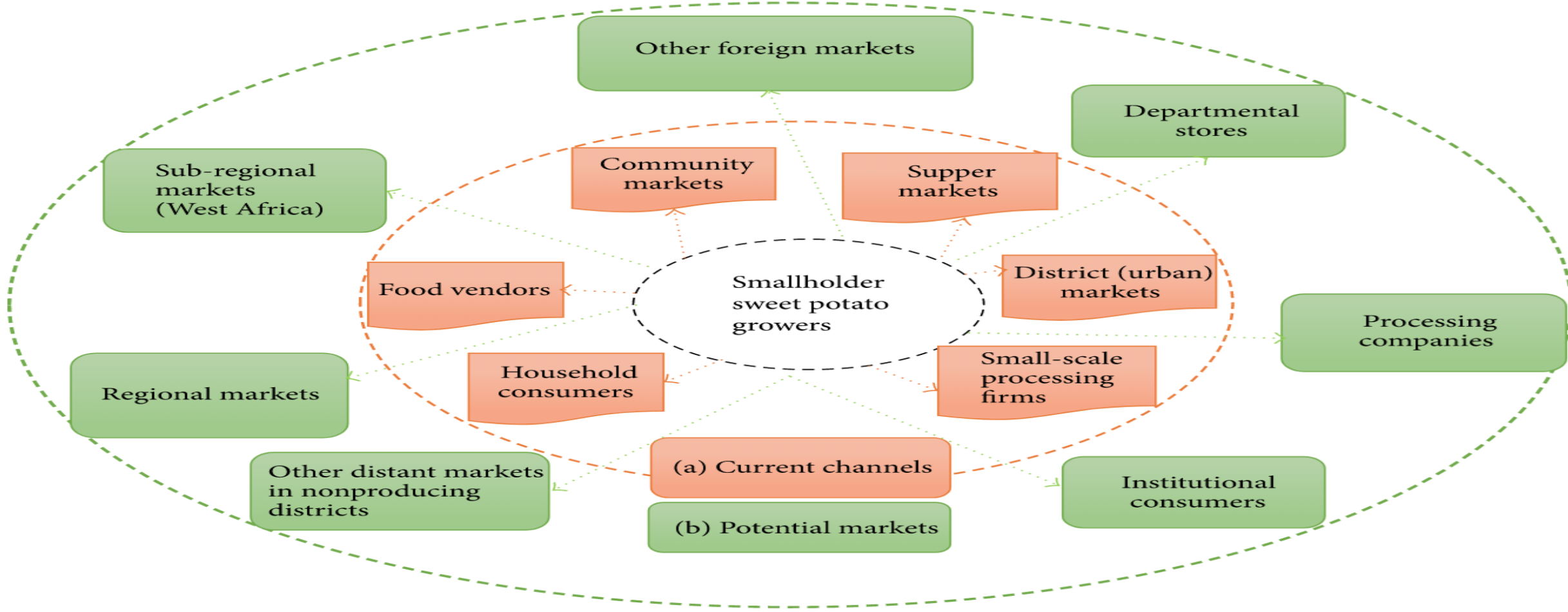
# Market channels for fresh OFSP roots



**CIP**  
INTERNATIONAL  
POTATO CENTER



Technologies for African  
Agricultural Transformation



# OFSP Technologies Scaled-out



**CIP**  
INTERNATIONAL  
POTATO CENTER



Technologies for African  
Agricultural Transformation

Promoting the newly released OFSP varieties (nutritious, high-yielding and climate resilient)

Seed system development: seed production (clean planting materials), seed multiplication, distribution, and quality control.

Inclusive value chains through Business and financial services training, improved OFSP product processing and enhanced markets linkages

Nutrition education and awareness creation, processing and value addition



Varieties



Production



Markets



Consumption

# OFSP Technologies being Scaled-out



**CIP**  
INTERNATIONAL  
POTATO CENTER



Silage technology targeting the youth for job creation and for supplementary livestock feeding

Young and maternal child nutrition, especially in the use Healthy Baby Tool Kit (HBT)

Consumption of leaves for nutrition, and vine conservation technique especially in dry areas

Irrigation technologies especially for seed multipliers



## HBT - OFSP Technologies being Scaled-out

- The Healthy Baby Toolkit (HBT) provides a complementary approach to maternal, infant and young child nutrition (MIYCN) interventions through promoting optimal child feeding and prevention of malnutrition.
- HBTs distribution has been integrated with nutrition education, OFSP vines distribution and OFSP cooking demonstrations at health facility and community levels.
- In Kenya (2020/21); 8,500 households (in 6 counties) with children aged less than 2 years, pregnant and lactating women have received HBTs to support in child feeding and promote diet diversity including consumption of OFSP.



1

A bowl with lines and symbols that cue age appropriate meal **frequency** and **volume** for children at different ages<sup>1</sup>: 6-9 mos., 9-12 mos., 12-23 mos.



2

A slotted spoon to guide **optimal thickness/texture** of infant foods and complementary foods. If the food does not drip through the holes in the spoon, it is thick enough to ensure sufficient energy and nutrient density.



## Other OFSP Technologies Scaled-out

- ✓ Use of net tunnels and screen houses for production of disease and pest-free quality basic seed
- ✓ Post-harvest management & new sweetpotato storage systems
- ✓ Raised bed production as a means of soil fertility and weed management,
- ✓ Use of specially blended fertilizers that are better adjusted to crop demand
- ✓ Intercropping with legumes as a farm enterprise strategy

# OFSP Outputs, Outcomes and Impact in numbers



**CIP**  
INTERNATIONAL  
POTATO CENTER



- 63 technologies (including OFSP varieties) promoted
- Over 30,000,000 million cuttings distributed to direct beneficiaries
- 76 promotional campaigns organized
- Over 108,302 individuals trained in different aspects of OFSP value chain
- Worked with more than 40 OFSP processors processing OFSP into various products
- Worked with 230 Private and government entity partners
- 705,453 beneficiaries reached (incl. household members)
- 5046 entrepreneurs in OFSP value chains
- OFSP yield increase from 5t/ha to 12t/ha
- Value of additional production US \$ 11.5m

# Partnership engagement



Advocacy through cultural, political and technocrats in government



Engaging Etsu Nupe in Nigeria



Participation in women's day celebrations, Uganda

Working with partners



Tehila bread in Malawi



TAAT and WFP team in Uganda

# Training & Advocacy



Commitment to training



Capacity in agronomy training-  
Makueni-Kenya



Demo plot establishment in Inhaca  
district, Mozambique

Commitment to Advocacy



Advocacy in Uganda



Farmer field day advert in Malawi

# Value addition



Technologies for African Agricultural Transformation

Special attention to urban markets, value addition



A market drive operation in Benue state, Nigeria



OFSP value addition training in Nigeria

Special attention to technologies that spur job creation – puree production and its use in confectionary



OFSP puree and large-scale use in Kenya



A group of youth in Uganda celebrate their first ever Sweet potato silage bag

# OFSP Priority Technologies

- 1: Puree Production
- 2: Silage Production



1



2



# OFSP Technology Development and Brokerage



- **Technology demonstration**
- **Marketing**
- **Technology uptake**
- **Technology scaling**

The OFSP video:

<https://youtu.be/hQDQ1pz5BAg>



# Conclusion



- Partnership engagement: NARS Partners NRCRI-Nigeria; KALRO-Kenya; IIAM – Mozambique
- Collaboration with other compacts: Water & Irrigation-IWMI; Capacity Building - FARA; Youth - IITA;
- Malawi - Department of Agricultural Research Services (DARS); Uganda - National Agricultural Research Organization (NARO)
- Private sector engagement: Puree production in Kenya, Rwanda
- Extension Agencies/ Development Organizations: ADP in Nigeria, WFP in Kenya and Uganda
- Youth engagement: Silage technology in Uganda
- Training & access to services to stakeholders along OFSP value chain (Production - Processing - Marketing - Consumption)
- Leveraging from several ongoing CIP-OFSP projects
- Technology brokerage & Turnkey business in OFSP sector



# Thank You!



AFRICAN DEVELOPMENT BANK GROUP  
GROUPE DE LA BANQUE AFRICAINE  
DE DÉVELOPPEMENT



Technologies for African  
Agricultural Transformation

