

Improved Cassava Technologies



Technologies for African
Agricultural Transformation



West Africa Technology Fair (WATEF)

Senegal, 25-29 October 2021

Cassava Compact

- ❖ Cassava Compact deploys well proven technologies and builds partnerships within each country for the deployment of the technologies.

The technologies aim at raising farm-level productivity, improving the efficiency of processing, increasing market opportunity for the smallholders, and catalyzing private-sector investment.

- ❖ Partnerships and linked activities with ENABLE TAAT, Capacity Development and Technology Outreach, and Livestock Compact

Cassava Compact

Operational modality /partnerships

Technology deployment is demand-driven; strong engagement of the country and private sector; co-financing of the technology deployment process, and co-implementation of the technology delivery in specific agro-ecologies (Agripole).



Togo: Excellent Example

Selected Technologies for Showcasing

1. Golden cassava
2. Rapid cassava multiplication technique (SAH)
3. Modern processing methods (the mobile processing system).

Other Cassava Technologies/Innovations

1. Good agronomic practices (GAP), including the six steps to effective weed management.
2. Mechanized cassava planting and harvesting
3. Novel food products from cassava
4. Market linkage



Golden Cassava (Vitamin A fortified)

Benin & Togo



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About the technology:

Golden or yellow-fleshed cassava are packed with beta-carotenoids.

Yellow cassava varieties provide a cost effective and sustainable approach to improving the nutrition and health status of the populations with economic benefits to the growers.



Roots biofortified with provitamin
A carotenoids (6-15 μ /g of root;
0.0006-0015%)

Golden Cassava (Vitamin A fortified)



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The components of the technology:

Biofortification of elite land races and hybrids that have high yield potentials and preferred agronomic traits (disease resistance, drought tolerance, etc.).

The consumption in form of diverse food items improves the quality of household diet.



Golden Cassava (Vitamin A fortified)

How the technology functions:

After ingestion, the carotenoids are converted into vitamin A as per the need in the body, which will reduce vitamin A deficiency (VAD), particularly among pregnant and lactating women and children under 5 years.



Deliverables: Increased Food Security and Improved Nutrition & Health

Golden Cassava (Vitamin A fortified)

Some evidence of success:

Through close collaboration with partners in Benin and Togo, varieties of golden cassava have been successfully scaled.

Partners:

- ❑ INRAB & BIORAVE-Univ of Abomey Calavi (UAC; Benin),
- ❑ ITRA/ CPES (Togo),
- ❑ HarvestPlus, and others

Distribution of yellow cassava cuttings to farmers (AKOUEGBA, BENIN)



Sensitization of farmers and processors on the importance of consuming biofortified cassava, (OUEDO, BENIN)



Semi autotrophic Hydroponics, SAH (A rapid cassava multiplication technique)

Togo & Sierra Leone



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About the technology:

Cassava has low multiplication ratios, limiting farmers' access to new released varieties.

A new method for rapid propagation of true-to-type, virus-free planting materials. Open for investment/ seed entrepreneurs to produce healthy and genetically pure seeds of new released varieties.



Semi autotrophic Hydroponics, SAH (A rapid cassava multiplication technique)

The components of the technology:

Tissue culture materials are rapidly multiplied (2-3 weeks) to generate plantlets grown in trays and transplanted on the field after 2-3 months.



Semi autotrophic Hydroponics, SAH (A rapid cassava multiplication technique)

How the technology functions:

A 20 m² space can hold 25,000 plantlets (2.5 ha) to generate 10 ha of cuttings per year.

The clean cuttings are sold to the next level of seed growers who multiply them further and sell to farmers for root production.

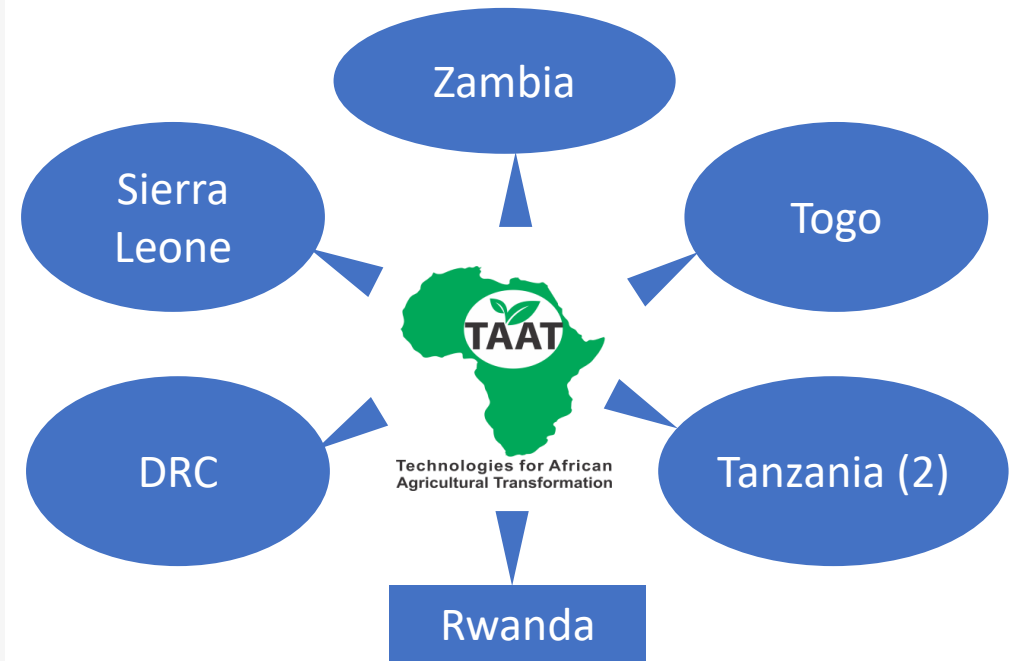


Deliverables: Productivity and Intensification of Production

Semi autotrophic Hydroponics, SAH (A rapid cassava multiplication technique)

Some evidence of success:

Through GoSeed Ltd. and other partners, the technology has been deployed to six countries and can form a foundation for seed sector development.



The Mobile Processing System (Modern processing machines)

Nigeria



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About the technology:

It was designed to take modern processing machinery closer to the rural farmers, resolve the inadequate supply of raw materials to the city-based factories, reduce the high cost of transportation, and reduce quality and quantity loss of roots.



The Mobile Processing System (Modern processing machines)

The components of the technology:

The technology consists of modern processing machinery and an electricity generator installed on a specially constructed truck suitable for rural roads. Both the back sides and the tailgate of the truck open flat to form a larger platform for processing cassava at the farm gate.



The Mobile Processing System (Modern processing machines)



How the technology functions:

The modern processing machines are selected and designed based on the cassava product of interest. At the farm gate, both the back sides and the tailgate of the truck open flat to form a larger platform for the processing. The products are transported more easily and cheaper to the city without loss of quality or quantity.

Deliverables: Processing and Value addition, Rural jobs

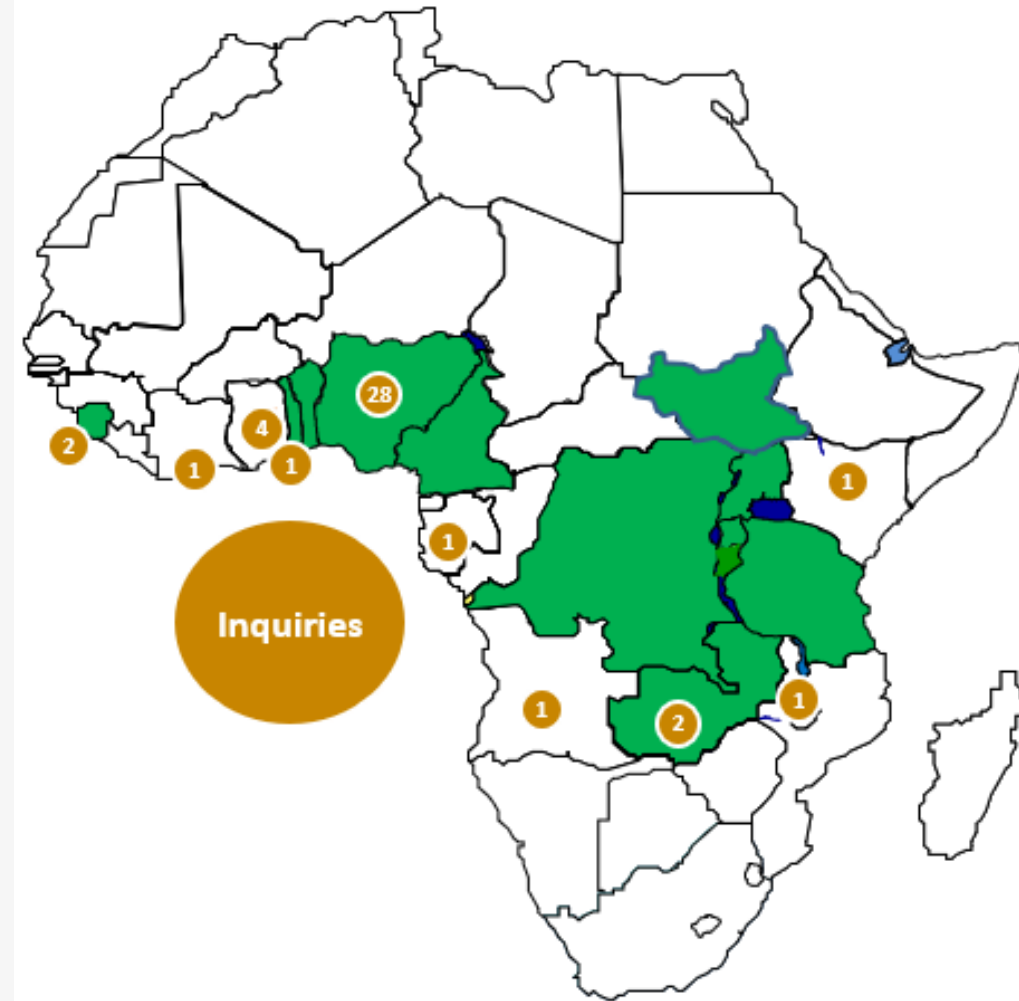
The Mobile Processing System (Modern processing machines)

Some evidence of success:

There have been interests to adopt the technology or actual investments in many countries.



ARM Agribusiness, Nigeria





Partnership engagement:

- ❑ Cassava Compact provides business related information and technical assistance to interested private sector participants
- ❑ Partnerships are formed with in-country extension agencies and development organizations to lead the technology delivery activities.
- ❑ Emphasis is on youth and women as primary beneficiaries of all the technologies

How to access the technologies:

- ❑ The main partners of Cassava Compact is the Ministry of Agriculture in each country, represented by the institutions responsible for cassava R&D.
- ❑ Enquiries could be sent directly to TAAT or Cassava Compact:
Email: TAAT-Africa@cgiar.org; A.Abass@cgiar.org

What to see at the Booth and Online:

- ❑ Mobile Processing: <https://www.youtube.com/watch?v=bXs62B7bMWE&t=1s>
- ❑ ProVitamin A Cassava in Benin: <https://www.youtube.com/watch?v=PLAi-Q9Q9LY>
- ❑ Cassava BON: <https://www.youtube.com/watch?v=qZBbyBRLf14&t=35s>
- ❑ Casava Compact –TAAT-Africa: <https://taat-africa.org/cassava/>

Acknowledgement

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- ❑ Presidential Special Initiative on Cassava (Togo)
- ❑ Private Sector partners



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Thank you