E-CVPP Innovations & Technologies

The Expanded Cassava Village Processing Project (E-CVPP) is a Farm Concern International (FCI) project in Kenya and Tanzania, funded by Alliance for a Green Revolution in Africa (AGRA). The project focuses on smallholder commercialization and market development of cassava and sweet potatoes. It is expected to facilitate production of up to 1.1 million MT of cassava in three years by 75,000 farmers in Kenya (Kilifi, Makueni, Mtwapa, Mwala, Busia) and Tanzania (Kibaha & Meru), and, 23,000 MT of sweet potatoes.

E-CVPP is an enhancement of the previous Cassava Village Processing Project (CVPP: 2010-2013), funded under AGRA’s Market Access programme that ended in February 2013. The project provided a good foundation to build a bigger initiative that would lead to a dynamic and transformational project on trade facilitation for the two value chains. This is done by sustainably responding to the barriers of cassava and sweet potato commercialization and market linkages.

In CVPP, innovations and technologies played a crucial role in commercialization of cassava among smallholder farmers across all sites. Among the suggested innovations are solar driers in Cassava Processing Units - (CPUs), hammer mills and cassava chippers. However, crucial improvements are necessary to guarantee their durability, effective capital investment and ease in usage. This therefore, will entail critical evaluation of innovations and technologies in terms of the type of fabrication, materials used in the innovations, initial designs and efficiency in use.
Relevant FCI Technology Innovations and Key Lessons so Far

Cassava and Sweet Potato Chippers

Manual Chipper
- Chips an average of 0.5 to 0.8 MT in 8 hours.
- Current design has no rollers - needs lifting to move.
- Chipping parts rotate freely.
- Most parts are made of iron metal which is prone to rusting.
- Fabricators Opportunity: Redesign to incorporate rollers, handle, use aluminum metal, lock chopper plate handle for safety.

Motorized Chipper
- Petrol, diesel and electric power driven.
- Petrol engine driven used in CVPP.
- Current model is heavy.
- Can chip 5 to 10 tonnes on average.
- Fabricators Opportunity: Redesign to use light metals - aluminum metal - and animal drawing hooks.

Solar Drier, Turbine Van & Digital Thermo Hygrometer
- CVPP design used PVC cover; roof was flat with no optimization devices.
- Redesign to use apex roof.
- Use UV treated greenhouse paper.
- Use optimization devices to hasten drying.

Rainwater Harvesting Technologies
- No rainwater harvesting was done in CVPP.
- Use roof catchments to harvest water.
- Use plastic tanks and farm ponds for water storage.

Solar Lights
- Use of kerosene lamps and spot lights.
- Solar lights will cut cost of kerosene and possibility of chips contamination and CCA.

Fireless Cookers
- Promotion was done in CVPP.
- More adoption campaign is necessary for reduced women time spending on firewood fetching.

Milling machines
- Most CVs didn’t have their own milling machines.
- Ideal machines are GM 20 Posho Mill, coupled to either 10 HP water-cooled one piston diesel engines or 15 HP 3-phase TEFC electric motor.