

CONCEPT NOTE

CASSAVA PROCESSING

WHERE: KENYA / EAST AFRICA

PARTNERING CSO: KENYA RED CROSS

The present value chain for cassava is short and lean as it is not a cash crop but mainly used for household consumption. The industrial market is therefore unexploited. Only small mills for making flour for the local markets exist at village level.

Business case

Farmers in Western Kenya have seen their income reduced over the last few years.

Maize is only yielding in average about 1,9 ton/ha/year due to climate change, and three out of four sugar mills are on the verge of being closed down due to heavy losses.

Thus, farmers are looking for crops that generate a higher and more stable income. Cassava is already being grown. As it is fairly drought resistant, farmers are shifting increasingly towards this crop.

However, traditionally it has only been used for household consumption, and there is therefore no industrial market ready to absorb the increasing amount of cassava roots - though it can be processed into either flour, or starch, protein and fibres for which there is an unsaturated demand on the world market. In fact, there is no starch processing plant in the whole of East Africa, and there is thus a completely unexploited business opportunity, which potentially could engage hundreds of thousands of farmers in the region and contribute significantly to the export revenue.

Based on a preliminary assessment carried out by a Danish starch expert, it is estimated that the output per ha will be somewhat higher compared to major cassava producing countries like Thailand, and that a starch processing plant would have a payback period of less than 5 years.

But as no processing has yet taken place, several solutions have to be developed for harvesting, haulage, pre-processing and utilisation of waste.

Expected output

It is expected that solutions will be developed for:

1. A cassava harvester for replacing manual labour for digging up roots.
2. Peeling and chipping equipment for cassava roots. At the moment this is done by hand, but just one processing plant will need 400 tonnes of roots per day, so mechanical solutions have to be developed.
3. Haulage. One major problem will be to transport the roots from the field to the processing site year around no matter the weather and road conditions.
4. Biogas plant. With the amount of waste products the plant can potentially produce 140% of its energy consumption.

Kenya Red Cross' role

KRC is already supporting 2,000 cassava farmers in Western Kenya with training, new seedlings and other input. If a starch processing factory will be established, KRC will further organize and train 10,000 – 15,000 farmers and also secure the supply of cassava roots by signing contracts with the farmers.