

## DEVELOPMENT OF VALUE CHAIN FOR LINKAGE OF CASSAVA PRODUCTION IN KALOLENI DISTRICT KENYA, TO MARKETS

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### Abstract

Kenya government has intensified efforts for improvement of cassava productivity, given the ineffectiveness of maize in combating the worsening food insecurity in the country. Such efforts can only succeed in an agribusiness system approach, incorporating value chains development to link cassava farmers to markets. A case for value chain development based on cassava processing to a gluten-free flour with doughing properties similar to those of wheat flour is presented. Such flour can enable cassava farmers access market nationally for baking flour, used for preparation of baked products such as *Chapatti* and *Mandazi*, at house hold or catering business levels. The technology involved lactic fermentation, drying and partial gelatinization. The technology was based on the already developed *GARI* production process (a cassava staple in West Africa) but improvements were done in production process and nutritive value of the end-products. These improvements were in the development of lactic acid bacteria culture (LAB culture), incorporation of soybeans, coconut cream and carrots, and optimization of pressing (dewatering) and drying systems. The cassava flour developed from this process was evaluated for its performance in the preparation of acceptable house hold products from maize and wheat flours. The LAB culture reduced fermentation time from more than 24 hrs by natural culture to 18 hrs, and generated stable and acceptable aroma in the end-products. The baked products *Chapatti* and *Mandazi* prepared from 100% gluten-free cassava flour, were most acceptable and indistinguishable from those made from wheat flour. The technology up-take and agribusiness set-up was demonstrated and disseminated by establishing a cassava processing pilot plant for Kaloleni women cassava smallholders, which is pictorially presented. The potential for the developed cassava value chain in exploiting national market opportunities for baked products

normally produced from largely imported wheat and also in addressing food security and poverty if replicated in areas unsuitable for maize production is discussed.

**Key words:** Cassava; Processing; Gluten-free Flour; End-products; Value-chain; Markets.