

## Co-develop a process to improve quality and address risks of a preserved pinapple product together with pinapple stakeholders in Uganda

Master-Thesis at the Department of Agricultural and Biosystems Engineering and Fulda University of Applied Sciences

supervisor: Prof. Dr. Oliver Hensel
supervisor: Dr. Margareta Amy Lelea

Presented by: Michelle Mausbach

Witzenhausen, June 2019

## **Abstract**

In Uganda, pineapples are one of the most important horticultural cash crops supporting the livelihoods of numerous small-scale farmers. However, due to their high moisture content of over 80% and their perishable nature, pineapples are prone to spoilage and wastage. Although fruit processing is promoted for its potential to avoid post-harvest losses and add value to the local pineapple supply chain, particularly small-scale processing faces numerous constraints under the prevailing low-external input conditions.

Within the frame of a transdisciplinary research project that seeks to reduce losses and add value in small-scale East African food chains, this study aims at co-developing feasible small-scale pineapple syrup production with improved product quality and expanding marketing possibilities together with pineapple value chain stakeholders in Uganda.

Qualitative data was obtained during fieldwork in Masaka District in Uganda between April and July 2018 by applying a participatory and actor-oriented approach using a series of group meetings (n=27 with 2-15 Participants each) conducted with two farmer groups that produce syrup, complemented with semi-structured interviews (n=20) and participant observations (n=4).

The first part of the results reveals motivations, benefits and challenges of pineapple syrup production from the perspective of the farmers and established processors. The second part of the result describe the participatory value chain development process and focusses on quality criteria and the actions performed to achieve a high-quality syrup by the farmer groups. Finally, the results show how farmer groups co-developed a context-specific assessment procedure to maintain and improve syrup quality that reflected product quality standards demanded by the market. This led to an iterative review of their business objectives to promote value addition.

The study highlights the importance of applying collaborative learning approaches within participatory value chain development for stakeholder empowerment to codesign innovations that they can put into action.