



## ROOT AND TUBER VALUE CHAINS AS ENGINE FOR RURAL ECONOMIC DEVELOPMENT IN GHANA

### Executive summary:

This policy brief is aimed at communicating key messages from the root and tuber value chain research project which was funded by Danish Ministry of Foreign Affairs through Danida. The findings are particularly interesting since they have implications for the development of the rural economy of Ghana.



### Introduction:

The broad aim of the project was to contribute to national research capacity that will eventually lead to strengthening root and tuber (cassava, yam, cocoyam, and sweet potato) value chains in Ghana. The project's main findings and conclusions can be summarized in the following key messages:

- I. Value addition and periodic capacity building for chain actors are the most practical and economically viable approaches to addressing the numerous constraints along root and tuber value chains in Ghana.
- II. New and improved products developed from root and tubers have high consumer acceptability and bright market prospects.
- III. Strategic partnership between local government structures (District Assemblies) and the private sector portends a greater potential for the commercialization of the new and improved products from root and tubers to create jobs, improve incomes, food security and overall livelihoods of actors in the root and tuber industry.
- IV. To boost the utilization of root and tuber crops and reduce postharvest losses, the central government should implement a policy that mandates the substitution of wheat flour with root and tuber flour up to at least 10% by all bakers and pastries producers in Ghana.

## Background:

Root and tuber crops are produced in almost all ten regions in Ghana, employing many women and the youth at the production, processing and marketing nodes of the value chain. However, due to their bulky nature, high moisture content, and poor storage practices, post-harvest losses associated with them could be as high as 50%. In addition, several constraints faced at various stages of the value chain impact negatively on efficiency, productivity and overall performance of actors in the industry. Traditional production and processing practices as well as weak linkages and poor relationships are quite common in the chain. The project employed a combination of laboratory, qualitative and quantitative research methods comprising value chain mapping, constraints analysis, product development and foodscape modelling, life cycle assessment, as well as econometric and business modelling to achieve the objectives. The combination of different methodologies called for the use of multidisciplinary research team members from Ghana and Denmark which eventually led to positive research outcomes and improved capacity building for Ghanaian researchers and postgraduate students supported by the project.

## Results:

Consistent with initial expectations, the project has led to enhanced capacity at KNUST in the area of value chain and product development research, having trained 2 PhDs and 5 MScs through collaborative working relationship with researchers from three Danish Universities. A number of constraints were identified along the crop value chains, leading to sub-optimal performance of almost all key actors (producers, processors and traders). Product development and value addition as well as capacity building for actors were identified as the main approaches to address most of the key constraints identified along the value chains. The project therefore developed at least two novel products and improved at least two existing products from each of the four crops to make them convenient and acceptable to consumers. The market potential and business prospects for these products were found to be very bright with consumers demonstrating full acceptance and willingness to pay premium for them when they are made available on the market. In addition to product development, over 300 actors in the crop value chains have been trained in modern production, harvesting and postharvest technologies as well as agribusiness management skills and production of diverse food products from shelf-stable flours produced from root and tubers.



## Conclusion:

Findings from the project present viable business or investment opportunity to the private sector and women or youth groups who are faced with the threat of unemployment in Ghana. Overall, the project outcome calls for closer collaboration and partnership between KNUST, local government structures (district assemblies) and the private sector to commercialize the new and improved products from root and tubers in order to generate the needed jobs and income in the medium to long-term.

### Implications:

Continuous capacity building is required for actors in root and tuber production, processing and marketing to improve efficiency and profitability along the value chain. Group formation among women and unemployed youth and empowerment in starting and managing cottage industries based on root and tubers products in partnership with the private sector should represent the new direction for our rural development policy in Ghana.

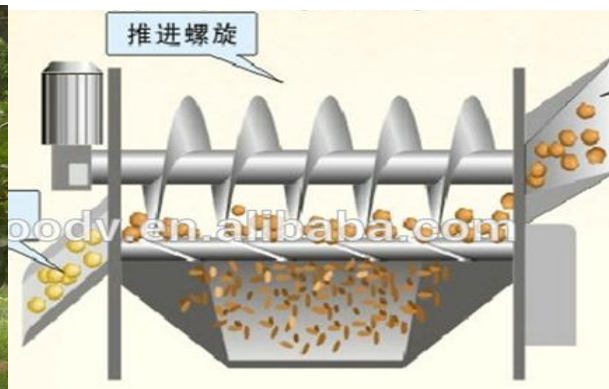
### Recommendations:

Based on the project, the following recommendations are made:

- Government should vigorously promote value addition through strategic partnership with the private sector to commercialize the new and improved root and tuber products developed from the project.
- The private sector should be incentivized under the *one-district-one factory* programme or the *Youth Enterprise fund* to enable them commercialize the improved root and tuber products developed from the project to engender job creation in rural and peri-urban communities.
- Active women and youth groups should be supported by the district assemblies with solar dryers and basic logistics under an innovative financing arrangement to enable them produce convenient and improved products from root and tubers to reduce post-harvest losses and enhance livelihoods.
- To boost the utilization of root and tuber crops and reduce postharvest losses, the central government should implement a policy that mandates the substitution of wheat flour with root and tuber flour up to at least 10% by all bakers and pastries producers in Ghana. Apart from saving the country foreign exchange used to import wheat flour, it would also lead to the creation of medium to large scale root and tuber flour processing companies with attendant positive effect on employment generation, income and poverty reduction.
- Periodic capacity building in basic agribusiness management principles for value chain actors will ensure efficiency, business profitability and sustainability.



*Solar dryer*



*Potato slicer*