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FIELD WORK REPORT

**Policies and Institutions affecting Agricultural Technology Innovation Systems (TIS): A Case Study
of High Quality Cassava Flour(HQCF)-TIS in Tanzania**

Master`s Program in International Public Policy (2nd year)

Graduate School of Humanities and Social Sciences

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1. Introduction

Tanzania is one of the countries located in the eastern region of Africa. It has an estimated population of 44.9 million people of which 66 percent depend on farming as their main source of livelihood. Over 70 percent of the population lives in the rural areas.

Cassava also known as tapioca remains an essential staple food for most societies in Tanzania especially in the coastal region. Cassava has supported the livelihoods of mostly rural societies in Tanzania and is commonly referred to as the complete crop because it's multipurpose utility nature. The leaves have high protein which are consumed as a vegetable or fed to livestock. The roots are the main storage part for carbohydrates and they are used in various ways as human food and animal feed in Tanzania. They are eaten fresh from the farm, they are processed locally into flours and that can be cooked into *Ugali*¹ and other products in Tanzania. The stems are used as firewood as well as fodder.

Recently cassava has gained recognition in the agroindustry subsector which has triggered commercialization of the crop. The crop is now being commercially processed into various products in Tanzania and these include High Quality Cassava Flour(HQCF), Cassava Starch, Ugali Flour, livestock feed, Biofuel and other products. This study focuses particularly on the first product, High Quality Cassava Flour. It provides an assessment of the institutional and policy environment of HQCF industry in Tanzania.

High quality cassava flour (HQCF) is fine white or creamy flour produced from fresh cassava. HQCF is used as a raw material in food and non-industries as a substitute for wheat flour; as an ingredient in confectionery products such as cakes, biscuits, and bread; for production of starch, a key ingredient in textile and paper board industry.

The study utilizes the functions of innovation system approach in order to analyze the critical policy and institutional factors influence HQCF industry in Tanzania.

Function of Innovation System Approach

The functions of an innovation system refer to essential activities that contribute to the development, diffusion and utilization of innovations in a technology system. Studies by several researchers have identified seven interrelated functions; knowledge development and diffusion, guidance on the direction of search, entrepreneurial experimentation, market formation, legitimation, resource mobilization, and development of positive economies. The FIS form a conceptual tool for analysing institutional and policy factors that positively or negatively affect development of innovations.

¹ Ugali is the most common tradition staple food for the Swahili Societies it is a thick porridge made from cassava flour or corn flour.

Organization of the study

The study involved both field work in Tanzania and review of scholarly literature, program reports and policy documents. However this report mainly focuses on a summary of outcomes of the field work issues, recommendations and way-forward.

Field Work

I conducted the field work for this study in the coastal region of Tanzania from the 11th to 31st August 2014. The host institution for my field work was the International Institute of Tropical Agriculture (IITA)-East African Hub based in Mikocheni Area, Dar es Salaam. Field work mainly involved field preparatory meeting with IITA researchers and confirmation of appointments. Visiting relevant institutions and conducting interviews with key informants. Conducting focus group discussions with farmers and local cassava processors. Attending cassava research seminars at IITA and collecting documents and reports from institutions.



Front of IITA, Mikocheni Tanzania

4. Summary findings

The cassava agro industry has made significant strides from being a traditional commodity to a widely utilized product in Tanzania. A number of policy initiatives have been done to promote cassava and obviously there is still more that needs to be done. This section provides a briefly account of both aspects respectively.

Specialized cassava research departments have been established in agricultural research institutions such as Mikocheni Agricultural Research Institute (MARI) and IITA East African Research Hub in Dar es Salaam. They have special departments focused on breeding new cassava varieties which high yielding more resistant to diseases. They have linkage with extension institutes that disseminate such new technologies

through on farm trials and demonstrations. Farmers, extension workers and researchers conduct frequent field days and discussions. Such interactions provide learning opportunities and feedback to researchers.

The coastal region has established over 120 cassava village processing groups and medium scale firms that are supplying HQCF and other cassava related products to supermarkets and industries mostly located in the main commercial city of Dar es Salaam. Government initiated projects such as the MUVI project from department of trade and industries has supported development of cassava value chain in the coastal region of Tanzania. The program has supported local cassava processors with training in production of cassava products with reference to Tanzania Bureau of Standards (TBS) specifications. The processors have also been supported to gain the TBS and East African Standards (EAS) certification mark on their products.



Processing cassava in Tanzania

Tanzania Bureau of Standards has supported the cassava industry by adopting the East African cassava food quality standards. This has largely supported marketing of cassava products in Tanzania supermarkets and to the large industries.

Policy has also supported development of equipment and machines specially designed for production of cassava products. The University of Dar es salaam, Tanzania Food and Nutrition Centre and other government institutions have supported in terms of research and production of machines such as the flash dryers, pressors, chippers. Small scale processors have been supported with loan facilities that support them to procure machines and establish their small factories.

Preliminary issues and recommendations

There is need to build market mechanisms between the small scale cassava flour processors and large scale industrial users of the flour. In general the large industries are offering low prices for the cassava flour whereas the small processors of cassava flour are demanding a higher price for their product. As a result there is a breakdown in the market link, high demand for cassava products by large industries but low

supply of from processors. Possible policy interventions would be to support reduction of production and distribution costs through mechanisms such as tax exemptions; improving efficiency of transport infrastructure and machinery.

Outcomes and future planning

Through this study I have managed to collect valuable data on the cassava industry in Tanzania. I had the rare opportunity to interview key policy makers, researchers, farmers, and middle level entrepreneurs. This has helped me to establish a strong network across the cassava innovation system in Tanzania. I am very optimistic that I will continue to access data and information support as I document the study. Data from this survey will be carefully analyzed and will form major part of the study report and possibly a journal publication. Most importantly this study has provided valuable data for my master's thesis which has a similar focus on cassava innovation systems in Malawi.

I am especially grateful to the General Graduate Education Program for providing me with adequate resources and guidance to successfully conduct this study.