

## **Project Policy Brief**

### **Growing Innovative Entrepreneurs through Action Research in the Agribusiness Value Chain in Tanzania**

#### **Executive summary,**

Growing Innovative Entrepreneurs concept came to life after the first phase of the project on “Development of Enterprise for Solar Drying of Fruit and Vegetable”. During the 1<sup>st</sup> phase, we experienced the fact that there is a need to work with human resource development in addition to technology and product development to ensure agribusiness value chains development in the country. The first phase of the project concentrated on technology for drying and development of new product lines including assessing quality and well designed packaging of products for the market with aim of helping entrepreneur start own business. The research team came to realize that although technology and product development is necessary it is not sufficient in stimulating enterprise startups, survival and growth. One ought to look into facilitating entrepreneurship along the value chain through training of entrepreneurs and having a well-developed training framework. We developed a five-step training program that included: (1) mind set transformation, (2) entrepreneurship training (3) business planning, (4) industrial internship and (5) business incubation. After the five steps one is expected to graduate with a own business that can be continuously nurtured for few more years.

Through the action research the project developed several product lines in fruit, vegetable, spices and sweet potatoes value chains. Products were produced for the market with proper packaging and labeling; promoted through trade fares and placed in various market outlets. Entrepreneurship training, business plans and linkages to financing were tested. Industrial internships were organized in Tanzania, Kenya and Israel using leverage funds from other donors. For sustainability Sokoine University Graduate Entrepreneurs Cooperative (SUGECO) was formed and formally registered under the cooperative Act of Tanzania. SUGECO business model included a large component on entrepreneurship deepening, technology transfer and outreach and supporting youth involvement in agriculture and agribusiness value chain. SUGECO developed the business ecosystems for nurturing agribusiness entrepreneurs.

The project trained three PhDs, one in food science (SUA), another in Business economics (Aalborg University (AAU)) in the first phase, and PhD in Business management (AAU) in second phase. All three are staff-members at SUA. In addition, a total of 10 Tanzanian Master students (4 food science and 2 MBA students at SUA), and 2 Danish master students (AAU) and 2 Norwegian (UMB)) were hosted at the processing incubator for their research. All 3 PhD who were staff at SUA are back at SUA continuing their three mandates: teaching, research and outreach activities.

## **Introduction**

The overall objective of the extension project (2012-2015) was to establish an Action Research based Incubator within Agri-business as an approach to integrate research and development at the university. This entailed generation of new knowledge on the design of the value addition process of student entrepreneurship through curriculum improvement (theory) and incubator training (skills) aiming at establishing of agri-business growth oriented entrepreneurs from SUA graduates.

Specific objectives were:

To use Action Research:

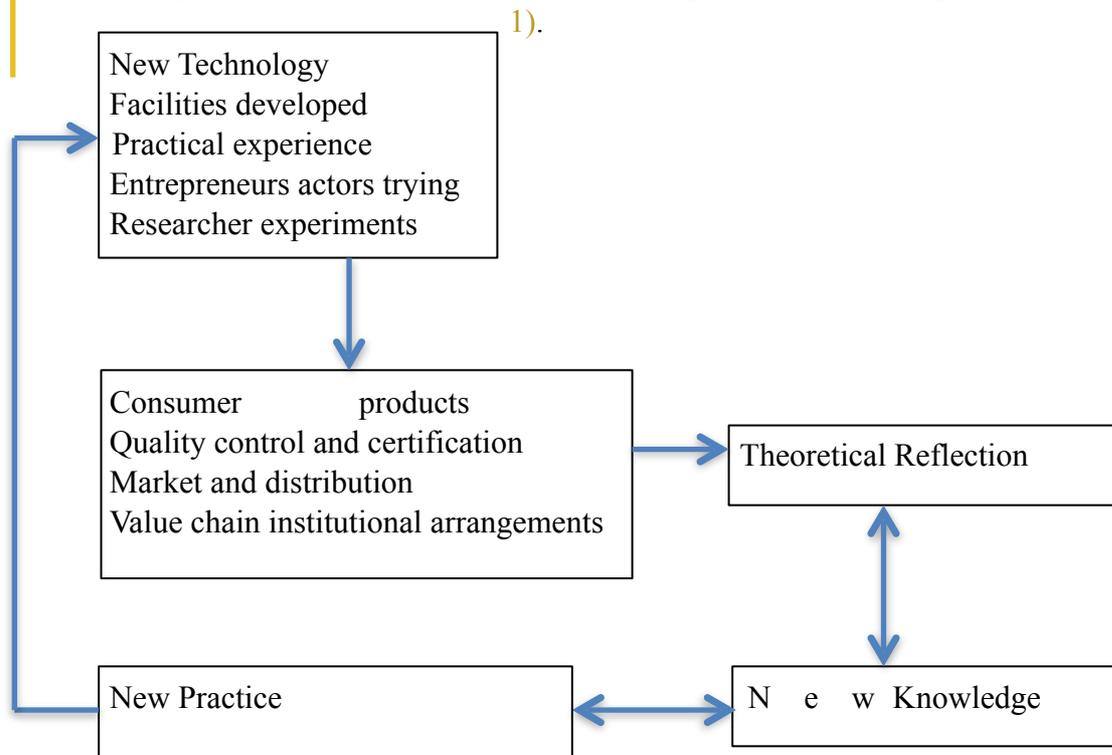
1. To conceptualise, unfold and implement the “student entrepreneurship value chain” (from student to incubator to entrepreneur).
2. To generate scientific information from food science and food technology studies as a support service for establishment of a viable SME.
3. To produce validated solar drying technologies for banana, mango, pineapple and tomatoes for commercialization through improved quality assurance and market access strategies for sustainability of the project outcomes (both product and processing facility).
4. To enrich SUA curriculum in entrepreneurship and business management with practical application in food processing.
5. To develop the (global) value chain vis a vis the farmers and consumers respectively.

Thus, the action research allowed the project to combine multiple sets of data and information into a coherent framework for establishing of food processing enterprises for employment generation. We therefore concluded that Universities can use such framework to ensure that their graduates apply theories they learn in class to development objectives that include enterprise development, business establishment and employment creation. Given the increasing unemployment and unemployability of graduates from university, the action research shows how various degree programs can use the framework to ensure that graduates have the required skills to start their own business after they graduate and how subprograms like industrial internships and incubation can help universities in developing countries like Tanzania keep-up with the changing demands of the industry. The need to continue exploiting potentials in agricultural sectors in Tanzania and approach extension education differently was also taken into play following the successes shown by Sokoine University Graduate Entrepreneurs Cooperative (SUGECO), organization that was established as a ground to implement lessons learned from reflections of results of action taken in the project. Thus SUGECO became a centre for practice.

## Background

The fundamental methodology of the project was that of Action Research where knowledge is generated through the intensive interaction between the researcher and the actor in the field under study, i.e. the agri-business value chains and entrepreneurs. As the project had both a research angle and a development angle, the fundamental approach was that of action learning (research based learning) through intervention and exploitation of identified potentials.

In action research, the researcher is not at a distant of the actor or the phenomenon he/she studies. To the contrary, the researcher interacts as intensively as possible with actors. The roles were, however, distinct: The actor act, for example, in the market and through his/her actions acquire experience. The researcher on the other hand will reflect on the experiences and confront them with the available theoretical perspectives. Thus, the practical experiences meet the theoretical reflections and the result the generation of new knowledge and the generation of new practices (Figure



**Figure 1. Action research process used in the project**

## Results:

The capacity to do action research was tested and utilized by researchers; through learning by doing processes researchers discovered the importance of doing action research to test research recommendations that researchers especially in social sciences do without trials on how things can be done and context should change to

ensure that intervention are effectively and efficiently implemented on the ground. We found that it is easy for researchers to recommend changes that are practically not possible given the context or that beneficiaries are not in the position to implement due to certain reasons. Although we started with assumption that once technology challenges are solved business on known products can takeoff smoothly. The product realized that it is highly necessary to look into the capacity of new entrepreneurs to learn the technology, work within rules and regulations of the country and be entrepreneurial enough to ensure that product of good quality and quantity are produce and find markets that are reliable and sustainable, out competing similar product in the markets.



Figure 2. Some of product lines developed through hands-on entrepreneurship

**Conclusions:**

The following stages of growing entrepreneurs in the food sector are recommended Figure 3.

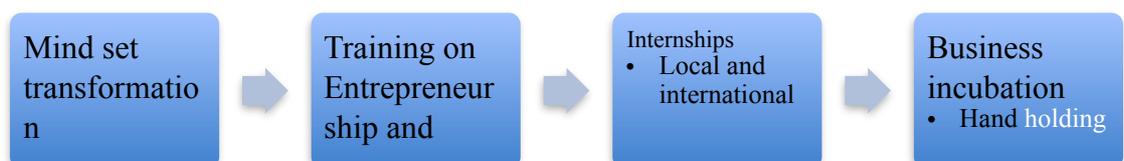


Figure 3. Stages of growing entrepreneurs in Food sector in Tanzania

**Implications:**

Intervention to develop value chain must include technology, product and human resources. However we also need to support entrepreneurs to work with existing business environment, as one work towards improving the business environment for startups in the sector. Rules and regulations need to be taken into account for the industry to ensure survival, growth and sustainability of new businesses.

**Recommendations:**

We recommend research-based education that emphasizes training using hands-on delivery; Problem-Based Learning (PBL) need to be utilized with focus on development. Basic research and more so applied researchers need to be ready to take action; approaches that test or experiment with recommendations will allow much more effective and efficient dissemination of research results. Intervention-reflection-knowledge-practice can be a way to make research more focus on developmental impacts to the beneficiaries.