

## Value adding through Agro-processing in Tanzania's liberalised economic environment: some thoughts for the new millennium

Kurwijila, L.R

Department of Animal science and Production  
Sokoine University of Agriculture  
P.O. Box 3004, Morogoro

### Abstract

*The paper presents a brief review of Tanzania's agro-industrial development since independence and during the period of a centrally planned economy. The main focus was on import substitution industries and sometimes import/export dependent industries which did not perform well due to either due to undercapacity utilisation or poor management or sheer economic uncompetitiveness. The paper further highlights on conditions necessary for success of agro-processing industries in Tanzania: type of products; choice of technology and scale of operation; cost of products, quality aspects and marketing and promotion. Finally, it is argued that Tanzania required the correct policy frame work with regard to internal and external trade policies which will enable agro-processing industries to grow and prosper in an increasingly globalised free market economy. The paper concludes by giving a case study (in slide series) of small scale milk processing ventures and appropriate small scale dairy processing technologies.*

### Introduction

The contribution of Agriculture to the Tanzania economy has been estimated at about 55% of GDP and about 80% of export earnings. The industrial sector contributes only about 7% of GDP compared to Kenya's 15% and Uganda's 8%. There is thus a big potential for increasing the share of the industrial sector in GDP contribution through agro-processing. In the seventies, under a centrally planned economy, Tanzania attempted to increase the value of her export earnings through intermediate processing of a number of her agricultural produce (cotton yarn, sisal twine, leather) or finished products such as textiles, corned beef, instant coffee, edible oils, etc.). The performance of most of these agro-processing investments did not fair well and most of them have been closed or liquidated especially following the liberalisation of the economy in Tanzania.

Agricultural production of major export crops like sisal, cotton, coffee, tea and cashewnut has been on the decline. The negative effects of falling agricultural productivity on Tanzania's economy is today compounded by a stagnant agro-processing industry. This trend must be reversed if the economics of agricultural households and that of the country as whole is to improve. The objectives of this paper is to:

- a) Review experiences and constraints in agro-processing in Tanzania with particular reference to the dairy industry
- b) Provoke critical thoughts as to opportunities and options available for re-vamping the agro-processing industry in Tanzania in the face of liberalised markets and globalisation of the World economy.

### Types of Agro-processing in industries in Tanzania

Import substitution agro-

industries of the 70s

The textile industry is perhaps the best example of import substitution agro-processing industry that was well intentioned and thrived on borrowed time. It lasted as long as it was protected from global competition through import restrictions, high import tariffs and other fiscal policies of the 70s. Upon being exposed to global market competition, some of it unfair (e.g. importation of second hand shoes and clothes- "*mitumba*"), it quickly buckled under the weight of IMF and World Bank backed economic reforms of the 90's. Privatisation and trade liberalisation that followed the reforms, has not helped matters as private investors find it hard to compete in an increasingly, global market. The impact of globalisation and dumping as it were will be discussed later.

#### **Import dependent agro-industries**

A number of agro-industries that were established in Tanzania may be described as import dependent with regard to:

- a) Processing technology, including requirements for technical backup, spare parts, packaging materials etc.
- b) Raw materials and other critical inputs/ ingredients

Perhaps the best example of which I am most familiar is the dairy industry. The former parastatal, Tanzania Dairies Ltd (TDL) operated seven dairy plants, three of which (Dar es salaam, Tanga and Arusha) were designed to reconstitute imported milk powder and butteroil, utilise carton paper packaging materials and spare parts that had to be imported all the time during a period of scarce foreign exchange. Those which were designed to process local

milk (Utegi, Mara, Mbeya and Tabora) were either too large ( a mistake still being committed by private investors today!) or too centralised with respect to the source of raw milk (often sparse milk shed over a very wide, inaccessible rural setting). The net result in both cases has been undercapacity utilisation (often less than 30%). Most of these plants have been privatised or are awaiting sale. Privatisation notwithstanding, the inherent weaknesses in these factories still haunt the new owners and seriously affect the profitability of their operations.

#### **Export dependent agro-processing industries**

One of the primary function of agro-processing industries is to increase the shelf life of agricultural produce, transform them to consumer desired products making it possible for a country like Tanzania to tap foreign markets and increase foreign exchange earnings. To achieve these objectives, such undertakings must be competitive regionally and globally. The meat processing industries (Tanganyika Packers in Dar es Salaam, Mbeya and Shinyanga plants) were by and large designed for export markets. Such investments inevitably fail where Tanzania has no comparative advantage in the global competition for markets of the same or similar products. Other well to do countries have instituted export subsidies purely to win export markets for the sake of supporting the livelihood of their domestic farmers. Tanzania, like many poor developing countries can hardly afford export subsidies and as a result, very few export oriented agro-processing industries have survived for a long time. The current crisis with the fish industry is a case in point. To export, one must meet standards of the importing country and face import tariffs as well.

### **Agro-processing for the domestic market**

Most agro-industries in Tanzania, like in many other developing countries fall under this category. Their primary purpose is to prolong shelf life of perishable farm produce such as fruit, milk, meat or to transform farm produce into more consumer desired products (such as the cereal, bakery and confectionery industries, the beverage and brewery industry etc) and to add value in order to earn more income from agriculture and related marketing functions. The size of these plants vary from very small to medium scale and large scale processing concerns. This is by far the largest category of agro-processing industry in Tanzania and will be dealt with in more detail below.

### **Conditions for success of Agro-processing industries in a liberalised, global economy**

#### **Type of products**

Whatever one may choose to process and add value to, one has to consider what is desired by the market and the form in which it has to be presented. A farmer will have very little choice except how best his produce can be value added. A trader or processor has to consider the various options depending on the available opportunities and prospects. Hence one type of commodity may attract more prospective investors than others depending on cost of investment required, market opportunities and likelihood of success. In this last regard, Tanzanians have been described variously as being copy cats. One success story leads to the next imitation!. Since trade liberalisation, we have seen more new entrants in the bakery and confectionery business than say in the fruit and vegetable canning; more in milk trade than in meat processing while upmarket outlets in places like Dar Es salaam, Arusha and

Mwanza are jammed with imported marmalades, sausages and bacon products! When you fly on ATC you are served with Mazoe orange juice of Harare not Tangold juice from Muheza/Korogwe citrus farming corridor!

#### **Choice of type of technology and scale of operation**

Type of technology is largely influenced by type of product to be processed, capital investment available, type of business set-up (family, partnership, public company etc.) and volume of business envisaged. The choice is between simple appropriate technology, outdated/second hand technology or state of the art technology. It is a matter of means, both technical and financial. Unfortunately there is very little possibility for sourcing locally, manufacturing equipment and machinery. Where available, the quality of workmanship and/or materials quality often leave a lot to be desired. Importation of processing equipment seems to be the only option for those wishing to go into production immediately they moot an idea to go into agro-processing. Unfortunately, most people do not know where to get what technology. It is easier to get a second hand Japanese car on the internet or down the street than any specific agro-processing equipment, new or second hand. Agro-technology information databases are not readily available. This is a challenge to SUA and private entrepreneurs. A few NGOs are delivering second hand equipment in the country while appropriate technology institutions like CAMARTEC, TIMDO, TIRDO, SIDO and IPI of university of Dar Es Salaam have yet to make their presence felt at a commercial scale. SUA cannot be excused of its duty to spearhead technological innovation in the agro-processing industry in the next millenium.

#### **Cost of products**

Whichever product is made, it must be competitively priced in the market, locally, regionally and globally. Cost of production can be high when the wrong technology has been selected (too big, too expensive to run especially with regard to energy requirements, packaging etc.). Undercapacity utilisation or too much wastage can only worsen an already bad situation. High cost products get out of the reach of the majority of the low income consumers and may limit sales volumes and profitability. It should always be the objective of any processor to operate as efficiently as possible in order to reduce the cost price of any manufactured product. A good indicator of the efficiency of an agro-processing venture is to measure the ratio between farm gate prices of raw materials and the consumer price of finished products. Currently in Tanzania the farm gate price of milk (200 shs/litre) is only 20% of consumer price of pasteurised milk compared to at least 50% - 60% in India and other countries with a developed and efficient dairy industry.

### **Quality assurance**

This is an element which is currently not being given much attention by various agro-processors in Tanzania, particularly small to medium scale processors. It has to be stressed here that quality assurance starts at the farm level with regard to raw materials at harvest time and subsequent handling. Quality assurance is important for consumer confidence. A good example of the impact of quality on consumer confidence is the turn around in consumer attitude towards Tanzania Breweries products following privatisation. While the Tanzania Bureau of Standards (TBS) sets standards for various processes and products, few prospective processors know them nor do they strive to attain TBS mark of quality. They view requirements to meet quality specification as a burden to their operations instead of catalyst to their sales

volumes. The bottom line is Good Manufacturing Practices (GMP) and the topline can be attained through sophisticated quality assurance systems such as HACCP (Hazard Analysis Critical Control Points) for the food industry and ISO 9000 series quality assurance systems for the food and non food industries. Quality of products starts with raw materials, the processing equipment and procedures, packaging and handling throughout the chain.

Even though perceptions of quality differ among consumers, it is the responsibility of processors and manufacturers to strive to provide the best quality products on the market. Quality is absolute. It is not relative. It is for every consumer. Every consumer deserves a good product. A good quality product does not have to be necessarily expensive. On the contrary, a poor quality, cheap product can be very expensive to the consumer should it cause any harm to him/her. Consumers on the other hand must demand quality. If they don't, processors will not feel compelled to offer quality goods and services. SUA can play a big role in raising awareness about the role quality and quality assurance to consumers and processors alike. Training in good manufacturing practices and quality assurance systems is important, starting at the grass root level.

### **Marketing and promotion**

While quality retains old customers, new consumers are won through marketing and promotion. The agro-processing industry, unlike the multinational beverage industry, advertises very little if any. Market promotion through generic and brand advertising is very important for success of any new or existing product. Consumer education on benefits and dangers of consuming certain products must be promoted by stakeholder organisations. There are very few in Tanzania. The co-operative movement is weak. Farmer education and training is neces-

sary for strong stakeholder organisations and here SUA and other government institutions and NGOs have an important role to play.

### **Competition and policy framework**

Staying in business and expanding the business requires winners. Competition must be won against local competitors as well as regional and global competitors. Following adoption of IMF and World Bank backed trade liberalisation policies from the mid 80s, Tanzania has not been spared of the harsh realities and inequalities of the competition between the North and South. Trade Pacts such as the Lome Convention for CAP countries, The EU Common Agricultural Policy, the World Trade Organisation (WTO) and its forerunner (The Uruguay Round- General Agreement on Tarrifs and Trade -GATT) all have, and continue to impact on trade relations between developed and developing countries. Export subsidies of the EU for example without commensurate import preferential tariffs for developing countries, have serious implication for the young agro-processing industries in Tanzania. Instant coffee produced in Tanzania attracts a higher tarrif rate than raw coffee when exported to the EU!. Combined with IMF and World Bank imposed trade liberalisation policies (low tariffs on imports, lifting import restrictions etc) , regional trade agreements such as zero tariff regime under COMESA, the East African Treaty all threaten the survival of small and medium scale processing industries *vis à vis* domination by multinationals. The resulting globalisation (deepening integration of World economies, technology and cultures) has led to dumping of subsidised exports from the EU, the USA and a few other OECD-countries. The EU for example is using about 1.7 billion Euro in export subsidies on dairy products each year. The export subsidy element in x-EU skim milk powder, whole milk powder and butter is 78, 87 and 129% of the World mar-

ket price respectively!. How can farmers and processors in a poor country like Tanzania hope to survive in the face of such institutionalised dumping?. Combined with rampant tax evasion, under-invoicing of imports etc. the effect on local industries is devastating to say the least. The dairy and textile industries are cases in point.

On the domestic scenc, unfavourable tax regimes, double/multi-taxation on raw materials and manufactured goods are a disincentive for the growth of the agro-processing industry. Stakeholders of Agro-processing industries need to be aware of the unfavourable competition imposed on them by local governments and international trade organisations and should argue their case forcefully but rationally.

SUA has a role to play in policy analysis and elucidating the impacts of various regional and global trade protocols on the performance of the agricultural sector in general and agro-processing in particular. Indeed these issues should be embedded in our various curricula.

### **A case study of small scale agro-processing and poverty alleviation: the example of the dairy industry in Tanzania.**

Before and after the demise of TDL, a number of small scale milk processing and marketing ventures have been initiated in Tanzania. This has been a response to opportunity presented by production of surplus milk in specific milk shed areas. Direct sales of raw milk to consumers dominates where this is practical ( dictated mainly by distance to market outlets). This is so because it ensures the maximum return to farmers and cheapest product to consumers without added costs of processing and packaging. Milk is a perishable product. Processing cannot be avoided in all cases. Processing not only adds value

but also expands the choice of consumers for milk and milk products.

The competition in the market place is intense, especially in Dar es Salaam. Small scale to medium scale processors are competing against each other and against imports. Issues of cost and returns to farmers play a big role. Quality of products and consumer convenience are also important issues. In the upmarket stores of Dar es Salaam, it is not uncommon to see consumers picking imported milk products that cost three times the cost of locally produced milk and milk products in preference to locally produced products. Local processors in the meantime complain of VAT and other taxes, claiming they make their products uncompetitive. I am not convinced. Other cost factors are equally important. One such factor the low capacity utilisation common with most agro-processing plants. A plant operating at less than 30% capacity cannot be competitive. Simple calculation will tell that a local processor operating at 30% capacity will cut down production cost per unit tremendously and increase profit margins at current tax regimes if the capacity utilisation can be raised to say 60–70%. Efficiency is the key word. Most small scale processors must strive to increase the efficiency of their operations and pay attention to quality.

One limitation is that producers do not really know their production costs due to poor record keeping. A similar situation exists for small scale processors and marketing organisations. SUA could assist tre-

mendously by studying in detail production cost of various agricultural commodities including transaction costs in the entire marketing chain. Only then, can realistic costing of final products be done. Days of 200% profit are gone and its not good business. The following slides show how small scale processors in Tanzania struggle to add value to milk (Appendix 1)

## Conclusions

Agro-processing has a role to play in import substitution, increasing the value of exports and domestically traded goods. In a liberalised market economy, competition is intense and has to be won for survival and prosperity. Domestic, regional and global trade policies have tremendous influence on competitiveness of local agro-processing industries. A better understanding of trade agreements and other international conventions and protocols to which Tanzania is signatory will be essential for raising the competitiveness of our agro-processing industries and defending them against dumping without resorting to protectionist policies. In all these matters SUA has an important role to play.

## References

- Eurostep, 1999. Dumping in Jamaica: Dairy farming undermined by subsidised EU exports
- Stefan Verwer, 1999. Incoherence of the European Common Agricultural Policy: Exporting Dairy to Tanzania and Jamaica (forthcoming)

## Appendix 1: Small Scale Dairy Farmers

### Small Scale Processing Venture: The Case of AMKA Dairies, Iringa and others

Prepared by Kurwijila, L.R.

#### Simple equipment contd...

- Electric Hot plates
- Plastic buckets



#### The benefits

- Self employment
- Employment opportunities for two and family members



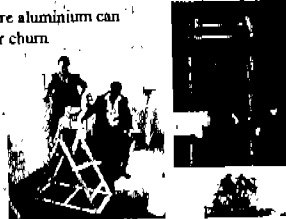
#### OWNERSHIP

- Mr. Msangi, Private Entrepreneur
- Former TDL employee
- Electrician by profession



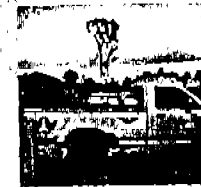
#### Other simple equipment contd...

- 50 litre aluminium can butter churn



#### The benefits contd..

- market for milk producers created



#### Premises and Capacity

- Rented buildings
- rent 10,000 per month
- 200 litres per day to grow to 500 litres per day
- milk price 150 - 250 / per litre



#### Simple equipment contd..

- Domestic butter churn 5 litres capacity)



#### The benefits contd..

- Production of consumer preferred milk products such as cultured milk



#### Financing

- CRDB Loan
- 800,000 / payable in 1 year at 21% interest
- SHDDP guaranteed capital equipment and initial operations



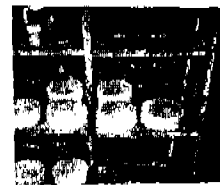
#### Other equipment contd..

- Ethiopian claypot with fitted with ILCA's internal agitator



#### The benefits contd..

- preservation of seasonal milk surpluses through products such as cheese-stabilises prices of raw milk market



#### Simple equipment

- Home made manually operated e.g. heating vats



soiling water baths



#### Other simple equipment contd..

- Wooden butter churn



#### Benefits contd..

- Added value to milk
- self employment

