

Commodity Value Chain Brief No.8

# Sugar

## Key Messages:

- Promote the establishment of a single desk sugar importation system.
- Improve the transparency and efficiency of the Tanzania Sugar Board.
- Harmonize import tariff rates between Tanzania Mainland and Zanzibar.
- Harmonize import tariffs for raw and industrial sugar.
- Improve business environment for sugar green field investments, processing and trade.

#### 1. INTRODUCTION

The Tanzania sugar industry is one of the oldest commercial industries in the country. It dates back to the 1930s, where the first granular production of sugar started in Arusha Chini (Moshi-Kilimanjaro). Large scale commercial expansion of the sugar industry began after independence with the establishment of the first commercial factory in Kilombero District. Since then, the sugarcane sub-sector has become one of the largest agro-processing industry in the country. According to the Sugar Board of Tanzania (SBT), the industry employs around 75,000 direct and indirect employees and over 75,000 households along the value chain. It contributes over Tsh.100 billion per annum in tax and over Tsh.230 billion in foreign exchange savings.

### 2. PRODUCTION, PRODUCTIVITY AND FARMING SYSTEM

Tanzania has yet to become a global player in sugar production, contributing less than 1% of the total global production and a mere 7% of the regional production. Most of the country's production is for domestic consumption which is still at a deficit. Production is predominantly carried out by large estates owned by sugar milling factories which are supplemented by out-growers and smallholder farmers. Production is largely concentrated in three regions, namely, Morogoro, Kilimanjaro and Kagera. Current production is around 2.5million tons of cane which produce about 300,000 tons of sugar (FAO,2017; USDA, 2015) on 31,000 ha of land while the average yield is at 77 tons /ha.

#### 3. DEVELOPMENT PARTNERS SUPPORTING THE VALUE CHAIN

The Southern Agricultural Growth Corridor of Tanzania (SAGCOT) initiative, a public-private partnership has been in the frontline to support investment in the sugar value chain. It is at the realm of coordinating numerous development partners such as the World Bank, DFID and USAID to invest in infrastructure and institutional capacity in the sugar industry (TIC, 2015).



#### 4. CONSUMPTION

Tanzania consumes a total of 715,000 metric tons of sugar, comprising 595,000 tons raw sugar for domestic consumption and 120,000 tons of refined sugar for industrial use (USDA, 2015). According to SBT, the country exports less than 2% of its total produce to the regional market, mainly to explore regional markets in view of implementing the sugar industrial development plan of 2011/12-2015/16, the SBT strategic plan and the National Economic Development Plan.

#### 5. MARKETING, TRADE AND INVESTMENT OPPORTUNITIES

Tanzania's agro-ecological environment including ideal soils, climate and topography provides the country with a natural advantage in producing sugarcane. Most of the existing sugar mills are at their maximum capacities; therefore, further investment is needed in terms of expansion and technological innovation. More so there is a need to attract new investment in green field development that will have the potential to supply both the domestic and regional markets. Market opportunities for the sugar industry are vast and are yet to be explored:

**Domestic Market:** The domestic market demand alone can barely balance the local supply of sugar. On average, the country produces around 300,000 tons annually of raw sugar for household consumption with potential growth rate of 6% per annum (TIC, 2015). On the other hand, the country's industrial demand for refined sugar is solely dependent on imports, indicating there are huge potentials in investing in sugar processing in Tanzania.

**Regional Market:** The annual sugar demand from the regional market (EAC members) is around 400,000 metric tons and its estimated growth rate is around 10% per annum (TIC, 2015); thus ensuring ample market for sugar upon expansion and new green field developments.

World Market: Sugarcane is considered one of the most efficient sources of biomass for biofuel (ethanol) production worldwide. Recent years have seen a drastic increase in global demand for fuel ethanol due to increased concerns over energy security, environmental sustainability and climate change (Nyberg, 2012). Hence, Tanzania has great potential to tap into the booming bio-energy sector by expanding sugarcane production.

### 6. VALUE CHAIN

Sugarcane is primarily produced by out growers and sugar estates (who own sugar mills). As Figure 1 shows, out-growers sell their cane to the mills for processing. Once processed the sugar is sold to wholesalers who in turn distribute the sugar to retailers and exporters. Imports tend to supplement the deficit in domestic supply for raw sugar and refined sugar. The sugar value chain is regulated by the Sugar Board of Tanzania.



Out Growers

Sugarcane
Production

Domestic
Consumption

Exports

Direct Consumption

Industrial Use

Figure 1. Sugar Value Chain in Tanzania

Adapted from Nkonya, & Barreiro-Hurle, 2012

#### 7. PROFITABILITY

Table 1 shows the gross margin analysis of sugarcane out-growers in Ruembe Ward, Kilosa District, one of the leading districts in sugarcane cultivation. The analysis is based on 1 ha farm size and includes all production costs from purchase of seed cane, land preparation, planting, weeding to cane harvesting and transportation to the sugar factory for milling. The analysis shows that the total production cost for one hectare of cane is USD2595. After selling a farmer gets revenue of USD3160 while the total profit of the whole venture is USD565 per hectare.



Table.1 Gross Margin Analysis for Ruembe Sugarcane Out-growers (2007/08)

Activity	Cost US\$1/ha
Ploughing	90
Harrowing	70
Furrowing	65
Planting	60
Weeding	150
Herbicide application	30
Fertilizer application	30
Harvesting	300
Transportation	200
Seed canes	500
Fertilizers	700
Herbicides	400
Total Variable Cost (TVC)	2,595
Total Revenue (TR)	3,160
Gross Margin (GM)	565

Source: Chongela, 2015

### 8. STRUCTURE, CONDUCT AND PERFORMANCE

The Tanzanian sugar industry is dominated by four large companies that commercially produce sugar: The Kilombero Sugar Company Limited which has the largest market share of 39.57%, followed by the Tanganyika Planting Company (34.38%), Kagera Sugar Limited (17.05%), and Mtibwa Sugar Estate with a market share of 9%. For several decades now there has been no major investment in green field development for the sugar industry. This has mainly been attributed to the unfavorable business environment for large agricultural commercial investments in the country that tend to multiply the risks in investment; more so for projects that require large capital venture and have a long payback period, like development of green field projects.

### 9. **POLICY ISSUES**

<sup>&</sup>lt;sup>1</sup> Exchange rate in 2008: 1 US\$ = 1,200 TZS



Establishment of a single desk for sugar Importation: To cater for the domestic supply deficit of sugar, a significant portion of sugar consumed in the country has to be imported. The Ministry of Agriculture Livestock and Fisheries (MALF) upon consulting with TSB is responsible for initiating this process by issuing import permits and at times can authorize exemption to the import tariff when required. The sugar importation process in the country has been constantly shadowed by allegations of misconduct that has led to oversupply of sugar in the market. This prompts the need for a more coordinated, efficient and transparent sugar import system, a single desk import system could be an option, where TSB upon consultation with industry stakeholders will be the only agent legally responsible for importation and distribution of sugar in the country, this will enable easy tracking of smuggled sugar and tighter controls on the amount of sugar imported.

Improve the transparency and efficiency of the SBT: According to the Sugar Industry Act of 2001, the industry is regulated by the Tanzania Sugar Board which is under MALF. As an overseer of the sugar industry, SBT's efficiency and transparency is key to promoting the development of the sugar industry.

Harmonization of import tariff rates between raw sugar and refined sugar: Different import tariff rates between raw sugar and refined sugar at 100% and 10% provides an incentive for business men and women to divert the cheap sugar imported for industrial use to enter the domestic consumption market, which may disrupt the domestic sugar market and jeopardize the health of consumers. There is need for harmonization of these rates.

Harmonization of import tariff rates between Tanzania Mainland and Zanzibar: Tanzania Mainland has an import tariff rate of 100% while Zanzibar sugar import tariff is at 10%; this provides an incentive to dishonest traders to import raw sugar in Zanzibar and smuggle it to the mainland for sale. Equalizing the tariff by increasing the Zanzibar tariff is one option; however, this will affect consumers with little tradeoffs to producers who are almost non-existent in the island. A more viable option would be to reduce the mainland's raw sugar import tariff as this will reduce the incentive for traders to smuggle sugar from Zanzibar.

Improving the business environment for agricultural commercial Investment: The Big Results Now (BRN) Initiative, upon its inception called for 25 commercial farming deals in sugar and rice by 2015. To date there is not a single large scale green field investment in these crops. This has mainly been laid upon by unattractive business environment for large scale agricultural ventures in the country characterized with lengthy and uncertain process in acquiring land for investment, high corporate taxes, multiple local taxes and high operational cost brought about by poor infrastructure in producing areas and stiff compliance to multiple regulations and taxes. Existing general incentive packages are not enough to offset these



constraints; thus, there is a need to improve the business environment through designing preferential incentives for agricultural investment.

#### 10. REFERENCES

Chongela, J. (2015). Economic Analysis of Outgrowers' Sugarcane and Paddy Production Scheme at Ruembe Sugarcane Basin in Kilosa District, Morogoro,

FAO (2017). FAOSTAT statistical data base. Food and Agriculture Organization of the United Nations. Rome.

Nkonya, N., & Barreiro-Hurle, J. (2012). Analysis of incentives and disincentives for sugar in the United Republic of Tanzania. Technical notes series, MAFAP, FAO, Rome.

Nyberg, J. (2012). Sugar-based ethanol: International market profile. Rome: Food and Agriculture Organization of the United Nations.

Sugar Board of Tanzania (SBT) http://www.sbt.go.tz/index.php/home-sbt-10/export visited on 25th September 2016

Tanzania Investment Centre (TIC) (2015). Tanzania Investment Guide. http://www.tanzaniagov.de/images/downloads/tanzania investiment guide TIC 2015.pdf

Tanzania: A Comparative Approach. Asian Journal of Agricultural Extension, Economics & Sociology, 5(2), 108-116.

USDA (2015). Tanzania sugar imports http://apps.fas.usda.gov/psdonline/psdquery.aspx visited on 26th September 2016

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