SOKOINE UNIVERSITY GRADUATE ENTREPRENEURS COOPERATIVE (SUGECO)

TANZANIA SUGARCANE GROWERS ASSOCIATION (TASGA)

CONSULTANCY SERVICES FOR COLLECTING POLICY BASED EVIDENCE FOR ENHANCING SUGAR INDUSTRY REGULATORY FRAMWORK OF TANZANIA

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EXECUTIVE SUMMARY

Sokoine University Graduates Entrepreneurs Cooperative (SUGECO) in collaboration with Tanzania Sugarcane Growers Association (TASGA) with support from BEST-AC engaged our team to conduct a study collecting policy based evidence for enhancing sugar industry regulatory framework of Tanzania. The study was conducted from November, 2012 – November, 2013; involving pre-project survey, project inception workshop, the main survey, validation workshop to present initial results and stakeholders workshop for sharing the final study findings.

Strengthening business environment in the up and down stream of the sugar sector is very important for maximizing the sector contribution to national income and rural livelihoods. The Sugar act of 2001 under Sugar Board of Tanzania has supported several positive changes and growth within the sector. However regulatory inadequacy still exists in relation to out-growers' benefits, governance and institutional framework for sugar importation and distribution resulting into negative impacts to out-growers and other stakeholders along the value chain.

In this study, the policy based evidence was collected for policy advocacy and dialogue with the government for enhancing sugar regulatory framework in order to enhance a win-win situation among players in the sugar value chain. The main focus of the study was to identify the gaps in the current sugar industry regulatory framework, presenting impacts of identified gaps on the industry and its stakeholders and recommend key proposals to amend the current sugar act and regulations for improved business environment in the sector. The study employed documentary review, field visits and interviews to collect data.

The study found that there is inadequately regulated and un-harmonized practices on rendement determination, tradable products from sugarcane, sugar cane price setting and institutional framework governing sugar importation and distribution system. These increases cost of doing business, and contribute to farmers realizing low revenue from sugar cane products. The cost of inadequately regulated and un-harmonized practices observed in the sugar cane value chain is enormous.

In the past 10 years, price difference and cane wasted (not processed due to factory inefficiencies) has contributed to a total revenue loss of around 20.95 billion Tshs to out growers. A total loss of 176 billion Tshs has occurred to sugar value chain actors due to factory inefficiency accelerated by lack of factory competiveness that is mainly caused by overprotection of the factories by the current regulation of 40 km radius cane reservation area. Out-growers have lost 5.64 billion Tshs. from decreased cane planted area by 3000 hectare in 2009-2012. If the country could enforce improved capacity utlilization from e.g. the current 56% to 90%, the government would realize an extra tax of 40.676 billion Tshs from the sector. Further the industry has lost an opportunity for cost reduction of 257.07 billion Tshs by practice of current institutional framework in sugar distribution services. An improved cash flow of 76 billion Tshs in sugar factories has not been realized because the sugar importation and distribution were not well coordinated.

Two categories of recommendations were provided, recommendations related to regulatory framework review and the other category related to strengthening institutional framework and governance for sugar importation and distribution. In the view of achieving the proposed recommendations, areas of further analysis and Strategy for policy influence were also recommended.

Recommendations related to regulatory framework review:-

i. Development of rules and procedure harmonizing sugar cane rendement determination**.** These needs to be included in the sugar regulatory framework and implemented in cane purchase agreement. Additionally the rules have to declare and implement use of core sampler as mandatory instrument for sucrose determination in sugar industry of Tanzania.
ii. Sugar cane and all the tradable products from cane be defined in the Sugar Regulatory framework so that their value can be shared between factories and outgrowers. This should also be implemented in the cane purchase agreement

iii. Value sharing price setting model is proposed to be the only one used and be included in the sugar regulations, it should also be included in the cane purchase agreement
iv. It is proposed that amendments be done on 40km radius to reduce the radius to economically justifiable cane reservation area in respect to current needs. It is proposed that this area be reduced to 20-25 km and farmers be allowed to enter the purchase agreement with any factory around the area.
v. Minimum factory efficiency is proposed to be set and complied by all factories. A mandatory minimum capacity utilization proposed herein is not less than 80%. The factory recovery index of 90% is proposed, and farmers need to attain the rendement of 10%.

Recommendation related to strengthening institutional framework and governance for sugar importation and distribution
It is proposed to establish Sugar Importation Control and Distribution Services (SICDS-Authority). This can be formed in the arrangement of the Private–Public Partnership arrangement that is more focused and responsible for implementing /facilitating mechanism for:
i. Bulk sugar importation
ii. Control of timely procurement that doesn't affect consumers and the factories
iii. Intervene on the dishonest business arrangements that tend to create artificial scarcity of sugar
iv. Monitoring and ensuring efficiency sugar distribution services

Further analysis for achieving the proposal recommendation
In the line of achieving the proposed recommendations:
- The Three approaches of determination of rendement should be clearly studied and harmonized for maximum merits to out growers and the factories.
- Further study should be done on rationale of 56.5/43.5 value sharing ratio between farmers and factory and make an independent recommendation on ratio.
- Study on Economic justification for establishment of new factory in Mtibwa and Kilombero should be done to meet 2001 sugar act part v.
- Further study on Capacity utilization and factory recovery index should be done based on economic benefit of factory and farmers
- Analysis for the framework and well-functioning structure of proposed (SICDS) Units has to be done.

Strategy for policy influence
Successful reform of the regulatory framework will therefore require sustained political support to undertake significant changes in the legislative, regulatory and institutional framework that will enable the sector to change its current status. This implies that in the policy influence process, other stakeholders need to be brought in into the policy change initiatives as well as recognizing that there is a diverse set of actors, sugar chain and non-sugar chain actors with different priorities and interests.

ABREVIATIONS

SBT	-	Sugar Board of Tanzania
TSPA	-	Tanzania Sugarcane Producers Association
TASGA	-	Tanzania Sugarcane Growers Association

MSE	-	Mtibwa Sugar Estates
KSCL	-	Kilombero Sugar Company Limited
TPC	-	Tanganyika Plantation Company
MOA	-	Mtibwa Out-growers Association
TUCOPRCOS	-	Turiani Can-Growers and other Crops Primary Cooperative Society
SUGECO	-	Sokoine University of Graduate Entrepreneurs Cooperatives
USD	-	United State Dollar
KCGA	-	Kilombero Cane Growers Association
ROA	-	Ruhembe Outgrowers Association
TRS	-	Total Recoverable Sugar
SAP	-	State Advice Price
FRP	-	Farmers Reference Price
PDS	-	Public Distribution System
EAC	-	East Africa Community.

1 CONTEXT OF THE STUDY

1.1 Background

Tanzania is a sugar deficit country, with four large estates producing about 300,000 tonnes of raw sugar annually. This amount comprises 57.6% of the total raw sugar demand currently standing at 520,000 tonnes. The demand gap which is approximately 43.4% is met by imports from such countries as Brazil and India. The raw sugar imports have an annual cost of approximately USD 132 million (Rabo-bank report, 2013). Sugar cane subsector is an important agro- based industry in Tanzania's economy with impacts to rural livelihoods of more than 100,000 people either directly as growers or indirectly in trade and services. The industry employs 14,000 people directly in the estates, more 10,000 smallholder farmers, 30,000 seasonal employees in the out grower schemes and 81,360 people on secondary employment. In the 2012/2013 production season, the sugarcane out-growers earned more than TZS 44.87 billion, contributing more than TZS 12.3 billion in government revenue and through its various income activities the industry contributes to poverty reduction efforts in the country (TSPA, 2013).

The sugar processing subsector is fully operated by the private sector through four factories, namely Kilombero with (Ruembe and Msolwa milling plants), Tanganyika Planting Company (TPC - Moshi), Mtibwa and Kagera Sugar company. All these factories were state owned until

1998 when they were privatized to local and foreign investors. The millers' estates and out growers schemes are major key producers and suppliers of sugarcane to the processing plants in Mtibwa, Kilombero and Kagera while TPC-Moshi is fully integrated i.e. source 100% of their sugar cane from their own estate farms. Out of 56,940 hectares under sugar cane plantations, 40% belongs to out growers schemes, for instance at Kilombero and Mtibwa out growers contributes 37% and 45% of total sugarcane supply to millers' annual requirement respectively.

After independence the sugar industry became state controlled with policy formulation, implementation, sugar cane and sugar production and marketing being executed by the state. Under Sugar sector reform of 1998-2001, private sector took the lead of operating the sugar industry with the state remaining the sole sector regulator through 2001 Sugar Act under Sugar Board of Tanzania (SBT). The current regulatory framework has supported several positive changes and growth that has taken place in the sugar sector over the past 13 years of privatization, but regulatory inadequacies still exist in the sugar sector with substantial impacts to sugar industry stakeholders.

1.2 Context of the study and the advocacy issue

The study was anchored on the regulatory framework inadequacies that negatively affect different sugar value chain stakeholders. It focused on identifying gaps and shortcomings in the current regulatory framework and its implementation that needs policy advocacy attention. Furthermore, the study quantifies and presents the level in which the identified policy issues affects farmers, processor and consumers and finally provide proposal for policy advocacy and dialogue with the government.

The sugar industry is known to be among the highly regulated agriculture subsector in Tanzania due to the vital importance of sugar as an essential household commodity. Regulatory framework provides guidance and control in sugar cane production, and sugar processing and marketing in order to ensure the survival of this vital subsector and avoid various risks within the industry.

Based on pre-project study conducted by SUGECO in November 2012, farmers and processors in the sugar sub sector of Tanzania has shown dissatisfaction with the current regulatory framework specifically in its capacity and ability to protect and safeguards interests of the stakeholders particularly sugar cane producers and processors. It is to the expectation of all stakeholders in the sugarcane industry that the regulatory intervention in the sugar sub sector will provide comprehensive and homogeneous guidance about several sugarcane value chain activities in order to eliminate irregularities and provide better business environment in all the four production localities and in the sugar distribution system. However, the current guidance and regulatory framework along the sugar value chain is either silent or inadequate on important issues which creates loopholes for sugar miller's, distributors and importers to directly or indirectly lower prices for famer's sugar cane and locally produced sugar while keeping the final consumer prices high.

Regulatory adequacy on rendement determination, tradable products from sugar cane, sugar cane price setting, cane reservation area of 40 km radius and institutional arrangement for sugar importation and distribution were assessed in this study.

Different sugar cane pricing models exist among the four sugar cane processing plants, further more the legal tradable products from sugar cane are defined differently by the processors to suit their own needs. This causes price differences among sugar cane producers that are using similar production costs but selling to different milling plants. For example, despite the fact that out growers in Mtibwa and Kilombero incurs similar costs in production i.e. 55,000-60,000Tsh per tonne, Mtibwa out growers receives 13,000Tsh less per tonne of sugar cane compared to Kilombero. Furthermore two sugar distribution systems are used in the sugar industry, the four and five levels distribution agencies, both with few general distributors and this situation has been the cause of persistently high sugar prices for consumers despite substantial sugar importation at low or zero tariffs.

1.1 Objective of the study

1.3.1 Main objective

The general objective of this study was to develop a policy position paper through collection of policy based evidences existing in sugar industry for policy dialogue with the government and influencing policy change for enhanced sugar industry regulatory framework of Tanzania.

1.1.1 Specific objectives

Specifically the study focus was to undertake the following:-

i. Assess the sugar industry growth dynamics under current regulatory framework and present/draw the relationship of production and processing in four localities (Mtibwa, Kilombero, TPC and Kagera sugar).
ii. Assess the current regulatory framework and present constraints/policy gap that needs to be addressed with respect to prevailing sugar industry growth dynamics.
iii. Assess and present the impact of inadequacy of current regulatory framework on out growers' economy, factories, local government authorities and SBT levy collection.
iv. Recommend measures for improvement and implementation of institutional framework and governance for the subsector including key proposals to amend the current sugar act.

1.1 Methodology

The study employed documentary review, field visits and interviews to collect data.

Field visits were conducted on the three sugarcane producing localities, namely Mtibwa, Kilombero and Kagera where out growers schemes are well established and contribute substantially to the amount of sugarcane processed by respective millers. Furthermore, Dar es salaam was also part of study area in this assignment due to location of important sugarcane stakeholders such as Sugar Board of Tanzania, the apex of out growers association, TASGA, Ministry of agriculture, Ministry of industry, sugar distributors and importers.

Using checklists, interviews were conducted with key informants including the processors, out-growers, out-grower representatives and associations, representatives from the sugar board, ministries, respective regional and district offices, importers and distributors.

1.4.1 Documents Review

A desk work was conducted to review relevant published and unpublished materials available at various libraries, offices and websites including policies, regulations, by laws, contracts and existing best practices around the globe in relation to policy issues and gaps in the sugarcane industry of Tanzania. The purpose of the documentary review was to gain proper understanding of the situation and collect published data and information on the subject as a basis for further verification.

1.4.2 Field visit and stakeholder interviews

Sugar industry stakeholders were interviewed. The objective was to generate information on adequacy and effect of sugar industry regulatory framework on out growers' margin, millers and government collection. The stakeholders interviewed included officials in sugar cane out-growers associations, sugar millers, association of sugar millers, Sugar Board of Tanzania, and Apex of Sugarcane out growers Association, local government authority in Kilombero, Kilosa, Mvomero and Kagera rural district, Ministry of Agriculture, Ministry of Industry, Trade and Marketing, and sugar traders in Morogoro.

1.2 Organisation of the Report

This report is organized in six major sections. The first section gives the background of sugar subsector, context of the study and research issue and methodology. Section two describes global experiences on sugar industry regulatory framework, it highlights deferent items regarding out growers business that have given considerable regulatory attention. Section three describes and presents the position of current sugar industry regulatory framework regarding key issues that affect out growers and value chain as whole. Section four presents inadequate or missing regulatory and institutional arrangements in sugar industry regulatory framework. Section five focuses on the impact of the regulatory inadequacy on sugar value chain actors. The conclusion and recommendations for the review of the framework and strategy for advocacy and dialogue process are presented in section six.

2 REVIEW OF SUGAR REGULATORY FRAMEWORK GLOBALLY

2.1 Introduction

The study reviewed sugar regulatory framework globally including the giant sugar producers Brazil and India. In this section regulatory framework experiences from Brazil, India, Jamaica and Uganda are reviewed.

2.2 Brazil sugar regulatory framework

Brazil sugar industry regulatory framework recognizes only one sugar cane price setting across the sugar and ethanol industry as the mandatory system used for determination of sugar cane prices for farmers. This regulatory framework goes further by providing details on how the setting of sugar cane price is achieved within the pricing model.

Concecana is a private sector arrangement whose main objective is to share risks between sugar and ethanol producers and sugarcane growers. The concecana initiative is based on two main rules, '*The revenue of the sugarcane grower is proportional to the industrial revenue*' and '*Price of sugarcane supplied by each grower depends on the level of sucrose that the product contains'*.

The Concecana model has been a very effective tool to share risks and benefits of the volatility of production costs and revenue levels between farmers and the industry. Being a multi-stakeholder initiative that unites the industry and farmers, it also gives transparency for procurement of sugar cane as it reduces the bargaining power of big companies over small producers. Concecana went beyond sugar industry to other sectors in Brazil, such as the orange juice production chain due to its success story on the sugar sub-sector.

In this model the revenue of the sugarcane grower is proportional to the industrial revenue. On average, sugarcane production accounts for 60% of total sugar and ethanol production costs. Therefore, the sugarcane grower receives on average 60%of the agro industrial revenue. Price of sugarcane supplied by each grower depends on the level of sucrose that the product contains. Millers pays more for sugarcane which contains more "sugar". The quantification of the sugar contained in sugarcane is determined in terms of Total Recoverable Sugar (TRS). TRS represents the quantity of sucrose, glucose and fructose which will be effectively converted into sugar and ethanol. Growers have the right to monitor mill laboratories 24 hours per day. It is a dynamic model, subject to revisions of its parameters and improvement of its rules on a regular basis (general revisions conducted every 5 years)

2.3 India sugar regulatory framework

2.3.1 Sugar cane price setting

India sugar regulatory framework has recognized the sugar cane price setting as its important regulatory element for several years. Farmers Reference Prices (FRP) and State Advised Price (SAP) has been used to strengthen the farmers interests. However, farmers and processors have held divergent views on which price is fair to both farmers and millers under volatile global sugar market.

In recent years India adopted a scientifically sound and economically fair principle to arrive at a fair determination of cane dues as a share of the total value in the sugar production chain, in line with the international practice. Detailed calculation done show that, on an average, cane farmers would get a better deal in terms of pricing of cane in comparison to the FRP and SAP and would also be more transparent and stable, benefiting both farmers and mills. In the Indian context, analysis of the costs incurred by sugarcane farmers and those incurred by sugar mills suggests that the value-sharing ratio between farmers and millers works out as 69:31 which, when rounded off, can be taken as 70:30.

2.3.2 Regulations relating to by-products

Value created sharing principles in Indian sugar industry recognizes that molasses, bagasse, and mud mills are also products whose value is to be shared by farmers and millers. In India there are several regulatory hurdles in respect to the by-products of sugar industry. In respect to molasses, these are, at the state level, in terms of state government decisions relating to fixation of quotas for different end uses of molasses, restrictions on movement (particularly across state boundaries), etc. In respect of cogeneration from biogas there are regulatory and implementation issues relating to freedom to sell power to consumers other than the local power utility, and resort by state governments or their electricity boards to restriction on such open access sale by frequent or routine invocation of statutory provisions meant to deal with emergencies.

2.3.3 Levy Sugar and the release mechanism for non-Levy Sugar

Indian sugar regulation has included issue of sugar distribution aspects in the view of regulating sugar distribution and control of artificial scarcity creation by distributors under oligopoly or monopoly distribution set up. Mills have to deliver a certain percentage of production (10%) to the government for distribution through the Public Distribution System (PDS), at a price which is lower than the market price. Free sale of the remaining quantity of sugar (net of levy sugar) release orders are issued by the Central Government. Both free sale sugar and levy sugar are subject to such periodical release quotas. Sugar produced over four-to-six-months season is, thus, sold throughout the year by distributing the release of stock evenly across the year. This release mechanism has been in place since 1942, when the Sugar and Sugar Products Control Order was first promulgated. The rationale for periodic release of sugar is to help ensure sugar availability throughout the year at a reasonable stable price to consumers. Till recently release orders were being issued on a monthly basis and are now being issued on a quarterly basis. The Indian approach on this matter is state based, however in the liberalized economy, different market driven ways can be used to achieve the same but putting in place institutional arrangement for this matter is important for efficient sugar regulatory framework.

2.3.4 Cane Reservation Area and the Minimum Distance Criterion

In the context of India these two regulatory /control instruments has long experiences. The former enables legal enforcement of supply and purchase of sugar cane within a mill's allocated catchment area, while the latter restricts the setting up of new mills within 15/25 km of existing mills. State governments have the power to reserve any area where sugarcane is grown for a specific mill having regard to the crushing capacity of sugar mill, availability of sugarcane in the reserved area and the need for production of sugar. The obligation under reserved area is mutual, that is, the farmers are required to supply all their sugar cane produce to the mill and the mill has to procure all the cane produced in the reserved area, even if incurring losses. Currently, 25 km is prescribed in Punjab, Haryana and Maharashtra whereas other states have a distance criterion of 15 km.

The minimum radial distance between two sugar mills has been subjected to several review as indicated, first time in the Five Year Plan (1980-85) *vide* press note dated 4th July 1980 and fixed at 30 km, to ensure adequate availability of sugarcane for the existing capacity as well as future expansion. This distance was increased to 40 km *vide* press note dated 2nd January 1987, and then reduced to 25 km *vide* Press Note dated 8th November 1991 and further to 15 km *vide* press note dated 10th January 1997. Sugar industry was deleted from the list of industries requiring compulsory licensing *vide* press note dated 31st August 1998. While de-licensing sugar industry, the government decided to continue with the distance of norm of 15 km to avoid competition among sugar mills to procure sugarcane.

The Sugarcane (Control) Order, give statutory backing to the norm of keeping a minimum distance of 15 km between two mills. State governments were authorized to notify a minimum distance higher than 15 km in their territory, in case they considered it necessary and expedient in public interest to do so subject to prior approval from the Central Government. On the request of the

Governments of Punjab, Haryana and Maharashtra, Central Government has approved increasing the minimum distance from 15km to 25 km in these states.

Several Arguments has been raised on Cane Reservation Area and the Minimum Distance Criterion under Indian context

i. Those who suggest that the reservation of cane area can be done on a permanent basis argue that the system facilitates sugar factories to undertake cane development work in their respective areas. This argument of the industry may be true in some selected pockets, but appears fallacious when one looks at the trends of sugarcane productivity in the country. Cane productivity was 68.57 tonnes/ha in 2000-01 and stood at about the same level in 2010-11 (68.59 tonnes/ha), marginally declining thereafter to 68.09 tonnes/ha in 2011-12. Thus, for the country as a whole, cane area reservation does not seem to have promoted productivity

ii. Another argument is that farmers' loans advanced by banks are tied to cane price payment and sugar mills stand surety for repayment of such loans. In the absence of cane area reservation, banks may not extend credit to farmers and the system will be jeopardized. In this connection, it may be noted that under the decontrolled scenario, sugar mills can still stand surety for those farmers who supply sugarcane to the mill on a regular basis, which will further strengthen the bond between sugar mills and farmers.

iii. Those in favour of scrapping the cane area reservation reiterate the views of the Thorat Committee (2009). The present system ties farmers to supply cane to a particular mill whether or not s/he is satisfied with it. The moot question is whether a farmer should remain "bonded" and supply cane to a particular mill even if it has not made payment for her/his earlier supplies. There is a case for dispensing with cane area reservation and giving freedom to the farmers to supply their cane to any mill of their choice. There is no cane area reservation system in Maharashtra and non-members of cooperative mills are free to supply cane to any mill which they like.

iv. The system of cane area reservation and maintaining a minimum distance between mills has shielding the mills from competition and has created perpetual monopolies. This policy does not allow a farmer to participate in a competitive market and get the best price for her/his cane. The farmer has no freedom to choose the buyer and is more likely to get delayed payments and unfair price for the cane than in a competitive set up. Thus, these policies have led to the continued functioning of inefficient sugar mills by giving them a guaranteed supply of cane and by not allowing market forces to work towards a viable equilibrium. For the growth of the sector and in the interest of efficiency in this industry policy should allow the Schumpeterian "process of creative destruction" to work.

Thinking forward

- In the absence of cane area reservation, there can be an apprehension that the entire crop may not get crushed, as farmers would not be tied to a particular mill particularly in the case of small and marginal farmers. Another apprehension is that it may be difficult for mills to draw up a schedule for day-to-day crushing. Both apprehensions can be addressed. The abolition of the present system would encourage mills to enter into contract according to their crushing capacities with individual farmers before planting of cane. As such, mills would be bound to crush the contracted quantity and draw up their cane-crushing schedule accordingly. In the changed scenario, farmers will have every option to pick up a mill of their choice. This will bring the mill and farmers closer to each other than under the present system. *A priori*, there is no reason why market-based long-term contractual arrangements which balance the interests of sellers and buyers will not work in this sector. Markets ordinarily are a superior option to state allocation of both raw material and manufacturing capacities. Therefore, over a period of time, states should encourage development of such market-based long-term contractual arrangements, and phase out cane reservation area and bonding. In the interim, the current system area may be allowed to continue

- However, where any mill fails to pay the cane price notified, or where farmers are not satisfied with the mill's performance and demand change, the State authorities should de-reserve the cane area of such a mill and allow farmers to sell cane to other mills as per their preference. In fact, farmers' choice should be given primacy while issuing cane area reservation orders as this will really enhance their bargaining power while negotiating the cane price and providing other facilities.

- Processors have shown the need to review the minimum radial distance between two sugar mills. Majority of the mills have argued for increasing it from 15 to 25 km on the grounds that mills have expanded capacities making a catchment area of 15 km too small to cater for daily cane-crushing requirements. Likewise, mills have set up cogeneration facilities that require large quantities of bagasse for power generation throughout the season. These pleadings of industry are not supported due to the fact that, higher requirement of cane on account of enhanced mill capacity should be met by increasing cane productivity rather than expansion of the area. The evidence shows productivity has not improved despite the mills enjoying the benefits of cane area reservation and the minimum distance norm.

- While the minimum distance norm has checked competition in cane procurement, it has, at the same time stood in the way of entrepreneurial initiatives. It does not allow entrepreneurs to set up a mill at their preferred location. It should be left to the judgment of the entrepreneur where s/he should set up the sugar mill. Entrepreneurs investing their capital will do so only after detailed viability studies and appraisal by financial institutions. In particular, they will certainly assess the present and future availability of cane.

2.4 Jamaica sugar regulatory framework

Jamaica sugar regulatory framework provides rules and procedure that monitor the condition under which sugar cane is sampled by a core sampler for sucrose content i.e. the amount of recoverable sugar being delivered to the factory.

It sets the level of efficiency at which the factories operates. The Factory Recovery Index (FRI) is set at 0.91 meaning all factories are expected to extract a minimum of 91% sugar in the cane delivered to the factory according to the formula specified in the regulation.

2.5 Uganda regulatory framework

The Uganda sugar policy has important contractual arrangement clause within sugar sector regulatory framework including sugar cane purchase agreement. In this contract, among other things, the cane price formula clearly explains how a price for sugar cane is achieved. The cane pricing is based on the formula:- CP = SP X 0.35 X R; i.e. cane price = sugar price X 0.35 X R Subsequently, there were disagreements and questions on rationality of this formula. The sugar cane associations have a contention on the percentage share of the sugar price. This new focus is based on elements of concecana model.

2.6 Key observation from sugar regulatory framework globally

In order to have a profitable and fair out grower business, the regulatory framework governing the sugar subsector should give clear guidance on rendement determination, define tradable products from sugar cane, clearly specify sugarcane price setting, cane reservation area and regulatory institutional arrangement for both sugar importation and distribution system.

3 SUGAR REGULATORY FRAMEWORK OF TANZANIA

3.1 Analysis of sugar regulatory framework

Tanzania sugar regulatory framework recognizes and gives guidance on several aspects in relation to sugarcane production, sugar processing and marketing. It is geared towards registration of sugarcane out-growers, sugar cane husbandry, contract farming, sugar manufacturing, and control of production of ethanol and other products, sugar export and import control, sugar import levy and shared function within the sector.

In broad terms, the regulatory framework has considered most of the general regulatory guidance issues in the sugar subsector. Furthermore detailed guidance for business issues in sugar manufacturing has been also considered. This is clearly evidenced by several parts in the 2001 Sugar Act that directly or indirectly ensures availability of sugar cane supply to the processors, avoiding unhealthy competition between millers (sugar cane conservation area of 40km radius) and control of sugar export/import trade. The framework also gives detailed guidance on consumer welfare by ensuring sugar availability at reasonable prices by promoting local production, restricting export and allowing controlled importation when need arises. Beyond providing regulatory framework on these issues, the regulatory framework has ensured institutional arrangements are in place at implementation level such as SBT, out growers associations, association of sugar processors, technical advisory committee of sugar importation, process and procedures on sugar export.

In the view of detailed business aspect for out growers, the regulatory framework has been either silent or does not directly provide regulatory bases for guidance of key issues. It also does not give bases for putting in place institutional arrangements that will enable safeguarding of out growers business issues at ground level.

Beyond the out growers business welfare issues, the sugar regulatory framework has not considered the sector in the context of value chain welfare in order to enable addressing of sugar processing capacity utilization issues, sugar distribution system and possible oligopoly or monopoly situations, intervention in sugarcane marketing, sugar processing and distribution. These three elements cannot simply be undermined in the view of regulatory framework since they are the key drivers that determine and safeguard interest of all chain actors within the sugar value chain. The analysis of different out growers' business issues and value chain welfare issues that have not received enough attention in the current regulatory framework is presented in the next session.

3.2 Analysis of issues that received inadequate attention in the current sugar regulatory framework.

In order to indicate the areas that have not been given adequate regulatory attention in the current sugar regulatory framework, the analysis in this part is made on the basis of two major areas of out growers' business issues and sugar value chain welfare.

ISSUES RELATED TO OUTGROWERS BENEFITS

3.2.1 Rendement (Sucrose Content) determination system

Three different approaches were found to be used in determination of out growers' sugar cane rendement.

- Kilombero approach where out growers are being paid on the basis of "sucrose content" in sugarcanes. The higher the sucrose level, the higher the price per ton of canes and vice versa. The price is agreed upon every year, based on the current sugar prices in the world market, canes sample for sucrose determination is taken on random basis from the pile of cane and sample is taken per every individual out grower.
- Mtibwa approach used similar basis like that of Kilombero except that the sample is taken per every 50 tons pile of canes which subjects more than one out grower to undergo collective sample test. This gives rise to complaints on the part of out-growers as it is against fair marketing practices
- Kagera approach, sugar cane are not subjected to rendement measurement but only weight are considered and flat price per tonne is given(currently 47,000/=)

During the focus group discussion farmers complained that there were possibilities for cheating in the entire measurement system since different approaches are used. Also farmers were of the opinion that the situation could be better off if regulation could provide single approach to be used in the entire industry and recognized core samplers as the only instruments to be used in rendement measurement since it has proved good results in many sugar industries globally. All the interviewed out growers associations representatives from both Kilombero and Mtibwa believed that the experienced decline in sucrose level trend in recent years that was very much pronounced during 2012 season (see table 1) was mainly caused by weak regulatory guidance on rendement measurements leaving loopholes for factories to decide in their favour.

Table 1: Drop in Sucrose for years 2009 to 2012

Year	Sucrose (Percentage)
2009	10.4
2010	10.2
2011	9.8
2012	8.4

Source: Kilombero Cane Growers Association (KCGA).

3.2.2 Tradable Products from sugar cane

Two approaches are currently used in the sugar industry for inclusion of tradable products from sugar cane. Under Kilombero, approach revenue from sugar and molasses are directly considered in value sharing through cane price model and biogas that is used to reduce production costs through electricity generation is implied in the ratio of cost of production between sugarcane out growers and millers. In Mtibwa and Kagera approach, farmers are paid only revenue from sucrose level, all other products revenues are accrued to the factories.

Despite out-growers incurring production costs for sucrose and other products in sugar cane that are of economic value, different approaches were used by millers either to include all the products or only sucrose in determining farmer's revenue (sugar cane prices). All the out-growers associations' representatives and farmers from both Kilombero and Mtibwa interviewed were of the opinion that, revenue from all sugar cane products should be shared by both parties based on value created. However, the current regulatory framework does not give guidance on this matter. This gap in regulation/guidance is considered by out-growers as the primary source of malpractice where factories have a leeway to determine farmers' revenues on the basis of only one or few sugar cane products out of the many tradable products from the sugar cane produced by these farmers.

3.2.3 Sugar cane price setting

Three sugar cane price setting have been observed in sugar industry of Tanzania.

- Kilombero approach is based on value created sharing ratio where the ratio between out growers and millers is 53.5**:**46.5. Farmers have been receiving a fair sugar cane price (65,000/=/tonne) under this approach. However, interviews with out growers shows it is not clear to farmers on the rationale of decision of using this sharing ratio.
- Mtibwa approach is based on rendement in the cane sugar but does not consider molasses value on sugar cane price and farmer receives 47,000/=/tonne.
- Kagera approach gives farmers flat price of 47,000/=/tonne without considering Rendement or value created.

Farmers associations officials interviewed have the opinion that Kilombero approach is better than the other two. They also suggest having a harmonized sugar cane price setting that could improve sugar cane price in all factories and guided by the regulatory framework. Farmers also suggest that the analysis of sharing ratio should be done by an independent body.

Figure1: Sugar cane prices at Kilombero Sugar Company limited (KSCL) and Mtibwa Sugar Enterprise (MSE)

Source: Authors computation from SBT data, 2013

3.2.4 Sugar Cane reservation area of 40km radius

Every designated mill is obligated to purchase sugar cane from cane farmers within the prescribed sugar cane reservation area of radius of 40 kilometers and conversely, farmers are bound to sell to the mill. As a consequence of the area requirement (distance criterion), setting up of a new mill requires approvals based on part v, 24 (1), (2)a, b, and c and (3) of 2001 Sugar Act of Tanzania. Indirectly sugar Industry Act 2001, forbids the establishment of a new industry within the radius of 40 kilometers from where the existing industry is based. This has been overprotection of mills and it hinders healthy competition that can stimulate sugar cane production and efficiency of mills. The out growers were of the opinion that the law forbidding the establishment of an industry/factory within the radius of 40 kilometers needs to be revisited. The clause is a threat to the development of sugar industry particularly for Small and Medium Enterprises(SME) in areas with abundant sugarcane production potential especially in Morogoro region.

3.2.5 Need for mandatory minimum level of efficiency for factories

The current factories capacity utilization in the threes factories are 87.4% TPC, 86.9% at KSC and 54.3% at MSE. Outgrowers in Mtibwa have been highly affected by this inefficiency due to lack of mandatory obligation in regulatory framework that requires factories to achieve a certain minimum level of efficiency. In the highly regulated industry like sugar industry of Tanzania, three issues should be of policy and regulatory framework concern,

- The volume of sugar cane to be supplied to factory (articulated in section 3.2.4 of this study).
- The is size of domestic market and its control currently given regulatory attention through part vi, viii, ix of 2001 sugar act.
- The minimum processing capacity utilization and the sugar yield factor to be achieved by the factories.

Despite factories being highly protected by regulation and farmers having no alternative markets for their sugar cane, the regulatory framework has remained silent on minimum processing capacity utilization and sugar yield factor to be achieved by the factories. This gap in regulation acts as disincentive for factories to improve their capacity utilization and sugar yield factor as long as any level of utilization and sugar yield give them a satisfactory margin, leaving the farmers bearing the loss caused by the factories inefficiencies.

For years sugar cane has remained in the out-growers farmers due to little processing capacity afforded by the factories, in such cases, farmers harvest is left to rot on the farms while they have already incurred all the production costs and have nowhere else to sell.

3.2.6 Sugar cane point of purchase

The current regulation is silent about the point of purchase of the sugar cane. The current practice is that, when the sugar cane load is received by the factories from out-growers, it is not considered sold yet. It is considered sold some days later when the factory starts to process the lot and get a measure of sucrose. The major flaw in this system is the sucrose level content deterioration with time, for every hour gone after harvest of sugar cane the sucrose levels goes down. If the factory keeps the harvest for two-three days before processing and the sucrose level goes down the out-growers takes the loss as they receive little or no money at all for low sucrose lot. Sometimes the received cane load is not processed due to breakdown of machines in the factory, however the out-growers are also penalized for this as they receive little or nothing at all as a result of low sucrose or rotten load while their harvest lie in the factory unprocessed.

ISSUES RELATED TO INSTITUTIONAL FRAMEWORK

3.3 Situation in the Sugar Distribution systems of Tanzania

An efficient and effective sugar distribution system is a pre-requisite for the availability of sugar in many parts of the country at the right time and at the relatively stable price. In Tanzania, despite the presence of clear formal sugar distribution channels that are obligatory for compliance by sugar producers and distributors, effective utilization of the same is still lacking. There are two quite varying distribution systems in the country adopted in different areas hence creating varying supplies and accounting for varying distribution costs in different areas of the country. The possibility of achieving an effective distribution system depends on regulatory and institutional arrangements in place to support the system.

During consultation with stakeholders in this study, it was found that two sugar distribution systems exist in Tanzania,

- The four levels system that is used by Kagera Sugar Company (KSC) and TPC where

46.2% of total locally produced sugar were distributed, and

- The five levels system that is practiced at KSCL and MSE where 53.8% of locally produced sugars were distributed.

The two distribution systems are characterized by concentration of large quantities of sugar in the hands of two major distributors. The mere fact that these major distributors that happens to be private, at any time holds a large percentage of the sugar supplied to domestic consumers undermines the sugar distribution system, since they have a leeway of distributing sugar only to traders and places which offer the most incentives to them.

Sugar traders interviewed in Morogoro complained about the difficulty they face in acquiring sugar produced by domestic factories and they totally attribute the difficulties and failures in the distribution system to the unfair advantage given to these major distributors. The study also observed that, despite the fact that the two sugar factories are located in Morogoro, traders from Morogoro get sugar supplies from these major distributors in Dar-es-salaam, meaning the sugar is transported from the factory in Morogoro to major distributors warehouses in Dar-es-salaam then shipped back to Morogoro thereby increasing the distribution costs unnecessarily to the burden of final consumer. It can only be construed that, the only reason any economically reasonable distributor would want to transport sugar to another location only to ship it back to the same starting point would be hording for purposes of influencing market prices. The current regulatory framework does not give guidance on distribution and/or hoarding of the produced sugar neither does it limit the powers of the major distributors in controlling the quantity released to the market.

From business point of view TPC, KSC, KSCL and MSE would wish to have distributors/wholesalers that can make payments in cash or cash in advance in order to facilitate timely payments to their out grower farmers. In this view, the factories consider the two major distributors a good choice as they have the financial muscles that meet factory business arrangements needs.

Under the existing sugar distribution arrangement and practice the sugar industry is being subjected to:-

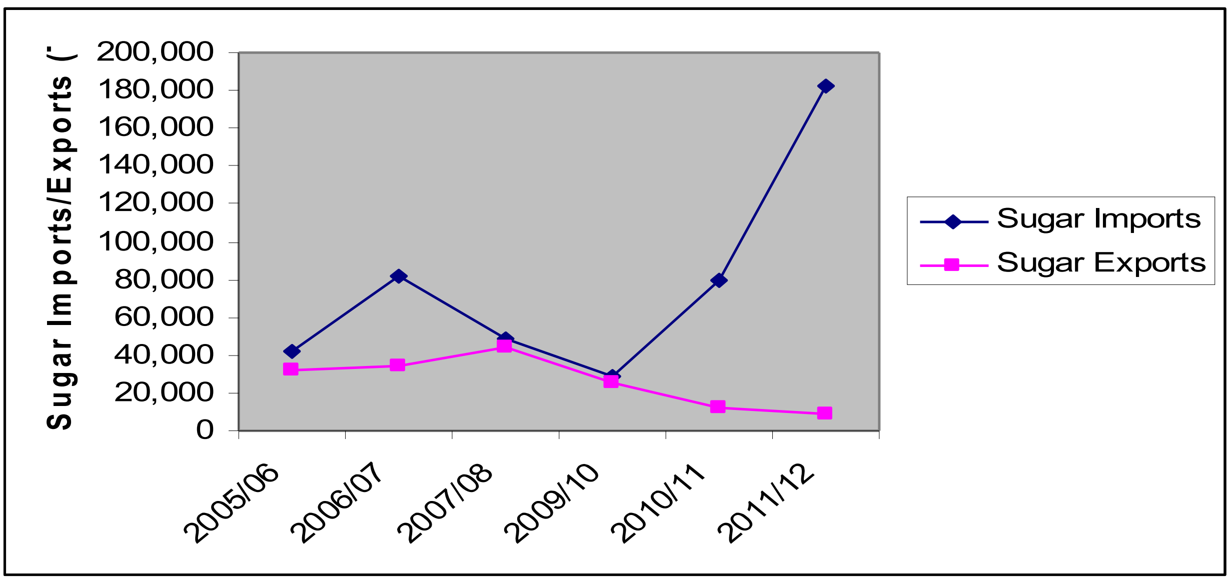
i. Extra transport cost resulting from centralized distribution point at Dar es salaam by large distributors.
ii. Extra cost due margins and costs of extra actor in five levels distribution system
iii. Potentially dishonesty distributors creating artificial sugar shortage by hoarding so that they can be granted import permit or sell sugar at inflated prices. This has damaging impacts to both produces and millers as unrealistic imports mean out growers cannot sell their sugar cane because the factories cannot sell their sugar to distributors as the market is flooded with cheap imported sugar.
iv. These distribution arrangements encourage monopolistic practices that may influence price determination.

3.4 Situation in sugar importation system of Tanzania

In addressing deficit of sugar in the country, the government in several occasions resorted to sugar importation by issuing import quota permits to the traders wishing to import sugar. The government seeks approval from EAC countries for tax wave, since in EAC sugar is regarded as a sensitive product. Under EAC the sugar industry is subjected to protection against sugar dumping and other malpractices from non-EAC member states, so as to sustain domestic sugar producers and enhance increased production to achieve growth and productivity. Figure 2 shows the state of sugar importation in Tanzania for years 2005 to 2012.

Sugar is imported by different private companies; however, the two giant local sugar distributors also happen to be the two major sugar importere(see appendices). Timely importation and distribution of imported sugar to a great extent is left on the hands of private sector with little monitoring from the SBT. Absence of regulatory authority for import control and sugar distribution services has caused failure in implementation of most of the Sugar Act of 2001. Bulk procurement system, timely importation and distribution are strongly recommended to address the monopolistic behavior in importation and distribution and reduce burden of high sugar prices on the final consumer caused by unnecessarily long distribution channels and artificially created sugar scarcity by dishonest business individuals.

Figure 2: State of Sugar Importation in Tanzania



Source: Computation from Sugar Board of Tanzania (SBT) data, 2013.

3.5 Mushrooming of multiple Out-Growers Associations

The laws governing the registry of associations under the Ministry of Home Affairs as well as the Sugar Industry Act 2001, among other things, empower the registration of sugarcane out growers associations. Farmers complained about the powers bestowed to SBT in determining the maximum number of associations to be registered in one area. The existence of multiple associations is one of the factors that weaken associations' power in bargaining for out-growers rights. The competitiveness of farmers in the supply chain depends on their collective action. The organization of farmers to undertake joint production and marketing enhances collective efficiency. Where there are many, small associations, out growers feel that their concerns cannot be upheld by the factories.

4 IMPACT OF IDENTIFIED REGULATORY AND INSTITUTIONAL FRAMEWORK INADEQUACY

4.1 Price Difference among Mtibwa and Kilombero out growers

Since the enactment of the 2001 Sugar act, out growers at Mtibwa have been receiving less payments per tonne compared to their counterparts at Kilombero. The price difference between Extra money received by KSCL out growers marked 52% of Mtibwa out grower's price in 2011/2012. The gain/loss of Mtibwa out-growers as compared to Kilombero out-growers due to price differences is shown in Figure 3 and Table 2.

Figure 3: Amount gained or lost by Mtibwa out growers as percentage of Mtibwa sugarcane price

Source: Computation from KSCL, MSE and SBT data, 2013

Table 2: Mtibwa out grower net loss due price difference from 2000/01-2001/2002

Year	Price difference in Tshs	MSE Outgrowers cane supplied in tonnes	Mtibwa out growers Gain	Mtibwa out growers loss
1998/99	292	209169.7	61,077,552.40	
1999/00	2968	72475.389	215,106,954.55	
2000/01	3327	120144	399,719,088.00	
2001/02	2038	207849.95	423,598,198.10	
2002/03	419	176931.6	74,134,340.40	

2003/04	-4807	240046		(1,153,901,122.00)
2004/05	-4135	241438.7		(998,349,024.50)
2005/06	-3766	259951		(978,975,466.00)
2006/07	-5000	129623		(648,115,000.00)
2007/08	-4501	230873.5		(1,039,161,623.50)
2008/09	-4869	216000		(1,051,704,000.00)
2009/10	-15767	179729		(2,833,787,143.00)
2010/11	-17664	195112.4		(3,446,465,433.60)
TOTAL GAIN/LOSS			**1,173,636,133.45**	**(12,150,458,812.60)**
TOTAL NET LOSS BY MTIMBWA OUTGROWERS DUE TO PRICE DIFFERENCES				**(10,976,822,679.15)**

Source: Analysis of SBT board data. Price at 10% Rendement; Net loss at 10% Rendement

4.2 Effect of factories over protection

4.2.1 Restricted out growers sugarcane supply share

Due to monopolistic situation created by regulatory framework under 40km radius as cane conservation area, out growers market share has been ranging between 37%-45% of total market for the past 10 years. This is because while KSCL has marked over 80% of its processing capacity utilization, MSE is operating inefficiently at around 56% of it full processing capacity. Given these inefficiencies, the 40km radius catchment area arrangement acts as a major disincentive for farmers to increase productivity due to the fact that they are bound by the regulation to sell only a limited amount to the mill within their radius and no more since they have no alternative markets. During interviews with out-growers association leaders in Kilombero and Mtibwa claimed that during 2011/12-2012/13 seasons, losses amounted to 90,000 and 70,000 tonnes of sugar cane due to harvested but unprocessed cane, not harvested at all and fire loss. The loss was valued at around TZS 5.85 and 3.15 billion for Kilombero and Mtibwa out growers respectively. Figure 4 below indicates the trend of out growers market share for the past more than 10 years.

Figure 4a: Out grower sugarcane market share at KSCL

Source: Computation from KSCL, MSE and SBT data, 2013

Figure 4b: Out grower sugarcane market share at MSE

Source: Computation from KSCL, MSE and SBT data, 2013

4.2.2 Mtibwa factory yield loss

In efficiency in factories, among other factors, are caused by lack of competition within millers localities. The inefficiency of Mtibwa factory as compared to KSCL over the past 13 years due to regulatory over-protection has resulted into several losses to stakeholders

- Out growers have lost around TZS 20.6 billions
- The estate farm has lost around TZS 24.6 billions

- Loss in government revenues - TZS 24.69 billions
- Government skills development levy loss TZS 464 million

Inefficiencies and consequently losses caused by inefficiencies at MSE as compared to KSCL are shown in table 3 and 4.

Table 3: MSE factory yield loss compared to KSCL

Mills recovery rate			
Year	MSE in %	KSC in%	MSE yield loss in %
2000/01	9.34	11.36	-2.02
2001/02	9.15	11.29	-2.14
2002/03	8.59	11.58	-2.99
2003/04	7.89	11.57	-3.68
2004/05	8.2	10.45	-2.25
2005/06	9.67	11.21	-1.54
2006/07	9.33	10.48	-1.15
2007/08	8.75	10.77	-2.02
2008/09	9.96	10.45	-0.49
2009/10	9.1	11.21	-2.11
2010/11	9.9	10.48	-0.58
2011/12	9.6	10.77	-1.17
2012/2013	8.9	10.87	-1.97

Source: Computation from KSCL, MSE and SBT data, 2013

Table 4: Actual loss resulted from factory yield loss at MSE compared to KSCL

Year	FYL	Annual sugar loss	Total value loss in Tsh	Estate loss in Tsh	OG loss in Tsh	VAT	LOSS SDL
2000/01	-2.02	6886.6042	2,848,353,872	1,566,594,629	1,281,759,242	1,611,465,383	30,301,058.48
2001/02	-2.14	9590.2602	3,989,459,482	2,194,202,715	1,795,256,767	2,244,120,887	42,197,144.88
2002/03	-2.99	12833.6182	5,205,354,400	2,862,944,920	2,342,409,480	3,003,066,659	56,467,920.08
2003/04	-3.68	16109.4576	6,539,987,044	3,596,992,874	2,942,994,170	3,769,613,078	70,881,613.44
2004/05	-2.25	9620.7075	4,324,902,991	2,378,696,645	1,946,206,346	2,251,245,555	42,331,113
2005/06	-1.54	7830.5612	3,281,616,704	1,804,889,187	1,476,727,517	1,832,351,321	34,454,469.28
2006/07	-1.15	4160.0675	1,864,905,835	1,025,698,209	839,207,625.8	973,455,795	18,304,297
2007/08	-2.02	10343.0868	4,509,809,936	2,480,395,465	2,029,414,471	2,420,282,311	45,509,581.92
2008/09	-0.49	2182.8814	98,129,4805.5	539,712,143	441,582,662.5	510,794,247.6	9,604,678.16
2009/10	-2.11	9256.8654	3879349558	2133642257	1745707301	2166106504	40730207.76
2010/11	-0.58	2769.8596	1241693153	682931234.1	558761918.8	648147146.4	12187382.24
2011/12	-1.17	5119.4754	2232202192	1227711205	1004490986	1197957244	22525691.76
2012/13	-1.97	8816.9714	3837015331	2110358432	1726656899	2063171308	38794674.16
TOTAL LOSS		**105,520.42**	**44,735,945,303.12**	**24,604,769,916.72**	**20,131,175,386.40**	**24,691,777,437.60**	**464,289,832.16**

Source: Computation from KSCL, MSE and SBT data, 2013

4.2.3 Cost of 34.4% inefficiency at Mtibwa to sugar stakeholders.

The restriction of 40km radius has been among the main contributing factors for the inefficiencies observed at Mtibwa due to the developed reluctance on the part of millers that resulted into opportunities lost to stakeholders. If this opportunity could be utilized, the market share volume supplied by out grower farmers could have increased by 858,629.181 tonne of sugar cane for the period of 2000/01-2012/13. As the consequences of the poor regulation and factories inefficiencies, the out growers sugar cane planted area have decreased by around 3000 hectare from 2009-2013. This translates into loss of the production capacity of around 120,000 tonnes of sugar cane under the current average of 40 tonnes/hectare, with total value of TZS 5.64 billion.

The total effect of this poor regulation resulting into factory inefficiencies at MSE over the past 13 years to actors in the sugar industry includes (see table 5):-

- Actual loss of TZS 5.64 billion in out grower sugar cane production due to decrease in planted area by 3000hectare from 2009/10 season to -2012/13 season.
- Factory fails to realize a potential value of TZS 49.33 billion from sugarcane revenue.
- Out growers fails to realize a potential value of TZS 40.35 billion from sugarcane revenue.
- Potential cess not collected TZS 171.7 millions
- Potential VAT not collected TZS 40.67 billions
- Potential SDL not collected TZS 750 millions

Table 5: Detailed potential opportunity loss due to 34.4% ineffiency at Mtibwa

Year	ESTATE	OG	CESS	VAT	SDL
2000/01	2943477822	2408300036	10248085.26	2488645025	45944215.84
2001/02	3869221848	3165726966	13471178.58	3204793384	59165416.32
2002/03	3705825290	3032038874	12902293.08	2881598136	53198734.83
2003/04	3779550162	3092359224	13158975.42	2699432218	49835671.71
2004/05	3691743399	3020517327	12853265.22	2740316145	50590451.91
2005/06	4390148204	3591939440	15284848.68	3842916655	70946153.63
2006/07	3123270156	2555402855	10874054.7	2637828189	48698366.57
2007/08	4420850353	3617059379	15391742.04	3501621314	64645316.57
2008/09	3846281575	3146957653	13391309.16	3467813420	64021170.83
2009/10	3787812805	3099119567	13187742.84	3120219956	57604060.73
2010/11	4123222552	3373545724	14355513.72	3695109232	68217401.2
2011/12	3777866552	3090981724	13153113.72	3283017185	60609548.02
2012/13	3864205552	3161622724	13453713.72	3113189355	57474265.01
Value foregone by 34.4% of Mtibwa	**49,323,476,269.10**	**40,355,571,492.90**	**171,725,836.14**	**40,676,500,212.99**	**750,950,773.16**

Source: Computation from KSCL and MSE data, 2013

Figure 5: MSE Trend of Sugar cane planting

Source: Computation from MSE data, 2013

4.2.4 Out growers business profitability/loss

Regulatory inadequacy in sugar cane price setting and outcome of 40km radius cane conservation area makes most of farmers incur loss in cane growing business at Mtibwa as presented in table 6.

Table 6: Losses incurred by farmers at Mtibwa

Year	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/2012	201/2012
Cane price per tonne	20500	26500	30516	31721	38000	38000	42500	47000
Production cost per tonne	20625	22647.1	33000	25666.67	24062.5	28875	38500	39827.59
Total deduction	6805	9626	12480	13500	14137	15520	17600	18100
Total cost + deduction	**27430**	**32273.1**	**45480**	**39166.67**	**38199.5**	**44395**	**56100**	**57927.59**
Net profit or loss/ tonne	**-6930**	**-5773.1**	**-14964**	**-7445.667**	**-199.5**	**-6395**	**-13600**	**-10927.6**

If the out growers production scenario of Mtibwa was under the same settings as of Kilombero (40 km sugar cane catchment radius and sugar cane price as ratio of the value of tradable products) most Mtibwa farmers would earn profit from cane growing business as presented in table 7.

4.3 Opportunity for cost reduction in sugar distribution

The study revealed opportunities for cutting down distribution and transport costs there by making the sugar price competitive while earning farmers and processors decent revenues. The current distribution channels cause unnecessary extra costs along the value chain. The costs can be reduced through selling sugar to the nearest deport and use four levels distribution system instead of five across the industry.

Table 7: Potential profits for Mtibwa farmers if the Kilombero regulatory and implementation settings were to be adopted

Item	**2005/06**	**2006/07**	**2007/08**	**2008/09**	**2009/10**	**2010/11**	**2011/2012**	**2011/2012**
Cane price per tonne	24265	34500	36900	44646	54103	56240	65000	63000
Production cost per tonne	20625	22647.1	33000	25666.67	24062.5	28875	38500	39827.59
Totol deduction	6805	9626	12480	13500	14137	15520	17600	18100
Total	27430	32273.1	45480	39166.67	38199.5	44395	56100	57927.59
Net profit or loss/ tonne	-3165	2226.94	-8580	5479.333	15903.5	11845	8900	5072.414

4.3.1 Cost of big distributors monopoly behavior

According to Rabobank estimates, transport of goods in Tanzania costs about USD 0.15 per tonne/kilometer. Consider 70 km and 130 from Mtibwa and Kilombero respectively to Morogoro and 200km from Morogoro to Dar es salaam. For Kilombero and Mtibwa case the cost increment is Ths 79.20 -158.40 and 64.8-129.6 respectively.

Table 8: Transport costs for sugar - Kilombero case

YEAR	Sugar tonnes at KSC	one way	Two ways	cost in one way -1	cost in two ways -2	unit cost/kg in 1	unit cost/kg in 2
2002/03	98420	330	660	7,794,864,000.00	15,589,728,000.00	79.20	158.40

2003/04	126743	330	660	10,038,045,600.00	20,076,091,200.00	79.20	158.40
2004/05	126516	330	660	10,020,067,200.00	20,040,134,400.00	79.20	158.40
2005/06	136941	330	660	10,845,727,200.00	21,691,454,400.00	79.20	158.40
2006/07	103682	330	660	8,211,614,400.00	16,423,228,800.00	79.20	158.40
2007/08	127436	330	660	10,092,931,200.00	20,185,862,400.00	79.20	158.40
2008/09	118023	330	660	9,347,421,600.00	18,694,843,200.00	79.20	158.40
2009/10	119623	330	660	9,474,141,600.00	18,948,283,200.00	79.20	158.40
2010/11	126824	330	660	10,044,460,800.00	20,088,921,600.00	79.20	158.40
2011/12	113100	330	660	8,957,520,000.00	17,915,040,000.00	79.20	158.40
	1197308	3300	6600	94,826,793,600.00	189,653,587,200.00	792.00	1,584.00

Table 9: Transport costs for sugar – Mtibwa case

YEAR	Sugar tonnes at KSC	One way	Two ways	cost in one way -1	cost in two ways -2	unit cost/kg in 1	unit cost/kg in 1
2002/03	36850	270	540	2,387,880,000.00	4,775,760,000.00	64.8	129.6
2003/04	34526	270	540	2,237,284,800.00	4,474,569,600.00	64.8	129.6
2004/05	35081	270	540	2,273,248,800.00	4,546,497,600.00	64.8	129.6
2005/06	49170	270	540	3,186,216,000.00	6,372,432,000.00	64.8	129.6
2006/07	33758	270	540	2,187,518,400.00	4,375,036,800.00	64.8	129.6
2007/08	44810	270	540	2,903,688,000.00	5,807,376,000.00	64.8	129.6
2008/09	42863	270	540	2,777,522,400.00	5,555,044,800.00	64.8	129.6
2009/10	40029	270	540	2,593,879,200.00	5,187,758,400.00	64.8	129.6
2010/11	47301	270	540	3,065,104,800.00	6,130,209,600.00	64.8	129.6
2011/12	28269	270	540	1,831,831,200.00	3,663,662,400.00	64.8	129.6
	392657	2700	5400	25,444,173,600.00	50,888,347,200.00		

4.3.2 **Extra cost due to five level distribution system**

An extra cost of Tsh 2000-4000 per 50kg bag of sugar

NB: W/S-Without wholesalers along the distribution chain

The figure above indicates that the longer the sugar distribution chain the higher the distribution costs, which are shifted to the consumer in form of increased price.

Table 10: Extra distribution cost in Kilombero due to five level

YEAR	Sugar tonnes at KSC	Thsh 40 /KG Increment	Tsh 80 /KG Increment
2002/03	98420	3,936,800,000.00	7,873,600,000.00
2003/04	126743	5,069,720,000.00	10,139,440,000.00
2004/05	126516	5,060,640,000.00	10,121,280,000.00
2005/06	136941	5,477,640,000.00	10,955,280,000.00
2006/07	103682	4,147,280,000.00	8,294,560,000.00
2007/08	127436	5,097,440,000.00	10,194,880,000.00
2008/09	118023	4,720,920,000.00	9,441,840,000.00
2009/10	119623	4,784,920,000.00	9,569,840,000.00
2010/11	126824	5,072,960,000.00	10,145,920,000.00
2011/12	113100	4,524,000,000.00	9,048,000,000.00
	1197308	**47,892,320,000.00**	**95,784,640,000.00**

Table 11: Extra distribution costs due to five levels distribution system in Mtibwa

YEAR	Sugar tonnes at KSC	Thsh 40 /KG Increment	Thsh 80 /KG Increment
2002/03	36850	1,474,000,000.00	2,948,000,000.00
2003/04	34526	1,381,040,000.00	2,762,080,000.00
2004/05	35081	1,403,240,000.00	2,806,480,000.00
2005/06	49170	1,966,800,000.00	3,933,600,000.00
2006/07	33758	1,350,320,000.00	2,700,640,000.00
2007/08	44810	1,792,400,000.00	3,584,800,000.00
2008/09	42863	1,714,520,000.00	3,429,040,000.00
2009/10	40029	1,601,160,000.00	3,202,320,000.00
2010/11	47301	1,892,040,000.00	3,784,080,000.00
2011/12	28269	1,130,760,000.00	2,261,520,000.00
Total	**392657**	**15,706,280,000.00**	**31,412,560,000.00**

4.2.5 Impact from Imported Sugar

Imported cheap sugar has a direct impact on domestic processors in short term and to the national economy in long term. Sugar, mainly from Latin America and Asian countries with low cost of production normally find its way into the country and are blamed for causing market distortions and becomes a threat to domestic industry’s growth. Import tariffs applicable in this respect are per East Africa Custom Union protocol whereby sugar imports are subject to 25 percent import duty and 18 percent Value Added Tax (VAT) in the case of Tanzania. To cover deficit of sugar from local industries, the import quota allows importation on zero tariff. For the year 2011/2012, quota allocation for sugar was 200,000 tonnes under zero tariffs, which started in August 2011 to 30 March 2012. This was aimed at recovering the deficit of 200,000 tonnes due to the shortage of sugar production in the country for the year 2011.

The imported sugar at zero tariff has lowered sugar price up to 9% where a 50kg bag was sold at Tshs 77000-83000 compared to 85000/= of locally produced sugar. According to Kilombero and Kagera sugar, 35,000 and 11,000 tonnes of sugar remained in their respective stocks because of failure to compete under market price. This meant that cash valued Tshs 76.5 billion was tied in stock at the factories while they failed to pay their outstanding financial obligations to out grower farmers and financial institutions. This in turn causes farmers to fail to undertake farm husbandry due to lack of financial resource hence low productivity. Further the farmers and processors outstanding financial obligations with the financial institutions continue to accrue more interest. The Sugar association and processors were of the opinion that the permitted sugar import was 80,000 tonnes more than the actual market needs. The cost for competing in the import distorted market situation for selling the 46,000 tonnes that was present at the time in the factories was valued Tshs 7.36 billion.

5 CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This section presents key conclusions and policy recommendations to guide stakeholders in the sugar sector on institutionalizing the policy change. The conclusions made are drawn from the findings and analysis made in this paper and stakeholders' views. The recommendations are expected to form the basis for enhancing the regulatory framework by suggesting areas that needs regulatory attention and a strategy to use in order to achieve the intended goals. Therefore, this part of the report plays a role of policy brief with concrete suggestions on the role that can be played by various stakeholders to bring the desired change.

5.2 Key Conclusions

The findings from documents reviewed, and from stakeholders who contributed their ideas demonstrated that the sugar sector has very high potential to bring economic development in Tanzania. Sugar sector is among the six important sub sectors that the government is placing great importance. The current sugar regulatory framework puts emphasis on promoting sugar cane production, protecting manufacturer and ensuring sugar availability at stable and reasonable price while underscoring the need to ensure out growers business welfare and mechanism for oligopoly/monopoly effect interventions in cane marketing, sugar importation and distribution. Experience around the world has shown that the underscored issues are vital toward achieving growth of the sector, profitability and benefits to all sugar chain actors. However, an analysis of sugar regulatory framework of Tanzania demonstrate that there is unregulated and not harmonized practices that lower revenue and competiveness of out growers and processor at the same time increasing consumer prices unnecessarily. As a result of regulatory gaps and un-harmonized practices, Tanzania has lost jobs, actors in the sugar sector have lost revenues, the government has lost revenues both from tax collections and foreign reserves used for sugar imports, and mostly lost the opportunity for sector growth and livelihoods improvements among out growers' community.

Therefore, the main goal of this policy proposal is to achieve sustained and equitable economic and social benefits to sugar sector stakeholders while increasing growth of the sector. To achieve this objective, the strategic approach for regulating and harmonizing issues related to farmers welfare and value chain restrictions posed by current regulation was done in working toward better business environment within the sugar sector. The areas that are unregulated and not harmonized, and that restricted in the sector's growth are highlighted as follows;

i. **Rendement determination system**: Three approaches are used by three different factories. These approaches are unregulated and not harmonized. Kilombero approach where out growers are being paid on the basis of "sucrose content" in sugarcanes. The higher the sucrose level, the higher the price per ton of canes and vice versa. The price is agreed upon every year, based on the current sugar prices in the world market. Canes sample for sucrose determination is taken on random basis from the pile of cane and sample is taken per every individual out grower. Mtibwa approach used similar basis like that of Kilombero except that the sample is taken per every 50 tons pile of canes which subjects more than one out grower to collective sample test. This gives rise to complaints on the part of out-growers as it is against fair marketing practices. Kagera approach, sugar cane are not subjected to Rendement measurement but only weight are considered and flat price per tonne is paid (47,000/=)

ii. **Tradable products from sugar cane**; two way of accepting tradable products from sugar cane exist. These approaches are unregulated and not harmonized. Two approaches are currently used in the sugar industry for inclusion of tradable products from sugar cane. Under Kilombero approach revenue from sugar and molasses are directly considered in value sharing through cane price model and biogas are used to reduce production costs through electricity generation that is also implied in the ratio of cost of production between sugarcane out growers and millers. Mtibwa and Kagera approaches, farmers are paid only revenue from sucrose level and but other products revenue are totally accrued to the factory only.

iii. **Sugar cane price setting;** three sugar cane price setting are practiced in the three different sugar factories. These prices setting are unregulated and not harmonized. Kilombero approach is based on value created sharing ratio where the ratio between out growers and millers is 53.5%:46.5%. Farmers have been receiving a fair cane price (65000/=/tonne) under this approach compared to other approaches. However it is not clear to farmers on the rationale of decision of using this sharing ratio. Mtibwa approach is based on Rendement in the cane sugar but does not consider molasses and biogas value on cane price and farmers receives (47,000/=/tonne). Kagera approach gives farmers flat price of 47,000/=/tonne but considers neither Rendement nor value created.

iv. **Cane Reservation Area of 40km radius:** It restricts establishment of new factory; every designated mill is obligated to purchase from cane farmers within the prescribed cane reservation area of radius of 40 kilometers and conversely, farmers are bound to sell to the mill. As a consequence of the area requirement (distance criterion), setting up of a new mill requires approvals based on part v, 24 (1),(2)a,b, and c and (3) of 2001 Sugar Act of Tanzania. Indirectly sugar Industry Act 2001, forbids the establishment of a new industry within the radius of 40 kilometers from where the existing industry is based. This has been over-protection of mills that hindered healthy competition that can stimulate cane production and efficiency of the mills.

v. **Needs for mandatory minimum level of efficiency for factories**; in protected environment sugar factory tends not to be much competitive in utilizing factory processing capacity and improving sugar extraction factor as long as they still make profit at any utilization capacity, putting the burden of inefficiencies to cane producers. There is a need to have in place mechanisms that will ensure the mills are not underutilizing their processing capacities to large extent and are effective in their sugar extraction factor in order to safeguard the producers' welfare.

vi. **Mushrooming of multiple Out-Growers Associations**, There are unregulated maximum numbers of association in specific areas. The laws governing the registry of associations under the Ministry of Home Affairs as well as the Sugar Industry Act 2001, among other things, empower the registration of sugarcane out growers in the country. The multiplicity of associations is viewed as one of the factors that weaken associations' power in bargaining for the out-growers' rights. The competitiveness of farmers in the supply chain depends on the strength of their collective action. The way the farmers are organized to undertake joint production and marketing enhances collective efficiency. In circumstances of many associations, the power of the collective action is undermines and the issues affecting of out growers cannot be upheld by the factories. In context of sugar cane industry, Tanzania Sugar Board should be able to regulate the maximum number of associations to be registered in one area for growth of sector and profitability of out-growers.

vii. **Need for institutional framework for sugar importation control and distribution**. There is weak mechanism to ensure timely importation, distribution and intervention on monopoly behaviors in the sugar sector. Under the existing sugar distribution arrangement and practice, the sugar industry and actors are subjected to

  a. Extra transport cost of around Tshs 130-160/kg resulting from centralized distribution point in Dar es salaam by big distributors.
  b. Extra cost of Tshs 40-80/=due margins and costs of extra actor in five level

distribution system.

c. Possible dishonesty among distributors that create artificial sugar shortage by hoarding so that they can sell at higher prices due to perceived scarcity or granted import permits and sell the cheap imported sugar(zero tariff) at high prices.

d. The arrangement attracts monopolistic practices that may influence price determination select areas for sugar distribution where consumers are willing to pay higher.

Sugar is imported by different private companies; however, giant local sugar distributors are also sugar importers (see appendices). Timely importation and distribution implementation to a great extent has been left on the hands of private sector with little monitoring from the SBT. Absence of regulatory authority for import control and sugar distribution services has caused failure in implementation of most of the Sugar Act of 2001. Bulk procurement system, timely importation and distribution are strongly encouraged in order to address the monopolistic behavior in importation and distribution and reduce the high price burden on final consumers caused by long distribution chains and artificial scarcity created by dishonest business individuals.

5.3 Policy Recommendations

The recommended policy changes are aimed at enhancing the sugar regulatory framework of Tanzania in areas outlined above thereby improving chain actors' revenues and stimulate overall sector growth. The recommendations are focused on the review of the sugar policies and laws in light of issues related to implementation as well as provisions to address the loopholes observed by stakeholders.

Table 14: Proposed policy recommendations

	Advocacy issue	**Policy proposal**	**Resulting outcome**	**Further analysis for achieving the policy proposal**
1	**Determination of Rendement in sugar cane**. Multiple practices caused irregularities and loss of revenues to farmers	▪ Inclusion of determination of Rendement in regulatory framework and to be mandatory used in cane purchase agreement ▪ Harmonization of determination of Rendement practices from three approaches currently used ▪ Declare use of core sampler as mandatory in sugar industry of Tanzania	Irregularities in Rendement determination will be avoided and improved out grower benefits will be realized	The three approaches should be clearly studied and the harmonized one should be that of maximum merits to out growers. **High level of stakeholder involvement**
2	**No definition of tradable products from sugar cane**.	▪ Inclusion of defined tradable products from sugar cane that its value need to shared by factory and out growers in regulatory framework and to be mandatory used in cane purchase agreement	Increased number of products that all out growers should benefit from in the sugar cane sale	**High level of stakeholder involvement needed**

		▪ Harmonization of way of defining tradable products whose value should be shared by the mills and producers		
3	**Setting sugar cane price**. Multiple practices caused irregularities and loss to farmers	▪ Inclusion of price setting model/formula in regulatory framework and to be mandatorily used in cane purchase agreement ▪ Harmonization of sugar cane price setting formula/model and practices from the current three approaches to one, a maracana model is proposed/Kilombero approach	Irregularities in price setting will be avoided and improved benefits will be realized to all out grower	Further studies should be done on rationale of 56.5/43.5 value sharing ratio between farmers and factory and make an independent recommendation on ratio. **High level of stakeholder involvement needed**
4	**Cane reservation area of 40km radius.** It restricts establishment of new factories even if there is economic justification. It also effectively prohibits farmers the freedom of selling to alternative markets, if the mill in the radius offers poor prices it's that or nothing.	▪ Amendment is proposed to be done and reduce the radius to economically justifiable cane reservation in respect to current need, proposed - 20 km radius and farmers allowed to enter the purchase agreement with any factory around the two	Improved market efficiency and reduced monopoly effects, and increased out grower's market share. Increase extracted sugar from cane.	Study on Economic justification for establishment of new factory at Mtibwa and Kilombero should be done to meet 2001 sugar act part v. **High level of stakeholder involvement needed**
5	**Needs for mandatory Minimum level of efficiency for factories.** sugar industry unregulated minimum efficiency cause loss to farmers	Mandatory minimum efficiency is proposed for all factories. Minimum Capacity utilization proposed not less than 80%and factory sugar recovery index of 90% and farmers attaining Rendement of 10%	It will increase market share of out growers in cane supply, increased sugar production	Further study on capacity utilization and factory recovery index to proposed a minimum based on economic benefit of factory and farmers **High level of stakeholder involvement needed**
6	**Mushrooming of out growers association.** ▪ There is unregulated maximum numbers of association in specific area that decreased bargaining power and collective efficiency for associations	▪ Proposal the sugar act should restrict out growers associations in respective locality. ▪ Proposed one country apex, three association in one production locality (Mtibwa, Kilombero, Kagera.	Improved bargaining power and collective efficiency for out growers	Out growers association and their members need to be highly consulted and guided on this matter to reach rationale recommendations. Review of framework either

				association or cooperative forms
6	**Need for institutional framework for sugar importation, control and distribution services.** ▪ Unregulated sugar distribution system with four and five level that brings an extra cost 200-240/kg ▪ Needs for monopoly intervention in sugar distribution and importation ▪ Uncoordinated for control and timely importation procurements and distribution	Establishment of sugar importation control and distribution mechanisms services(Authority) that will Take charge for v. Facilitating bulk sugar importation vi. Control of timely procurement that doesn't affect consumers and the industry vii. Intervention of dishonest business arrangements that tends to create artificial scarcity viii. Monitoring and intervention of monopolistic behavior in the market by an appointed authority.	Regulated importation and distribution mechanism will be in place and ability and capacity to monitor vital issues in importation and distribution	Analysis for the framework and well-functioning structure of proposed (ICDS) unit has to be done **High level of stakeholder involvement needed and dialogue with government authorities**

5.4 A Strategy for Policy Influence

Successful reform of the regulatory framework will therefore require sustained political support to undertake significant changes in the legislative, regulatory and institutional framework that will enable the sector to change its current status. This implies that in the policy influence process, other stakeholders need to be brought on into the policy change initiatives. As well as recognizing that there is a diverse set of actors, sugar chain actors and non-sugar chain actors with different priorities and interests in the process of policy change requires rational consideration in order to ensure that there are balanced changes. In view of this, the following strategy is recommended to bring the policy change.

- Sugar sector stakeholders can take advantage of the current Minister for agriculture industry and trade by submitting this proposal to him personally thereby seeking audience with his office to share the proposal and more. This could also be an avenue to seek an appointment with the Prime Minister for presentation of the proposal.
- Sharing of the hard and soft copies of this policy proposal with all key decision makers in the responsible Ministries and MDA for them to understand the situation and see opportunities and results of improving the current situation. Where possible, TASGA/SUGECO with support of BEST-AC can organize specific meetings with each key regulator to share the findings separately before organizing the joint meetings.
- TASGA/SUGECO should initiate the joint national policy dialogue meetings with the government and regulatory authorities' representatives to share this proposal and as a starting point to promote reforms and trigger a set of action-oriented discussions between the champions of the reforms and the institutions responsible for changing the regulations.
- Presenting the report in various conferences and forums on business environment in agriculture and agribusiness as well as SMEs Development in Tanzania. Since there are several conferences organized in Tanzania on the areas identified, TASGA in collaboration

with other PSOs in the Sugar industry sector can use those opportunities to share the findings with the aim of winning public interest and support in bringing the policy change.

- Lobbying to the members of parliament where sugar cane is produced and others strategically by organizing a seminar with the members of parliament with interest in the sugar sector and taking advantage of the seminar to share the findings. By doing so, the members of parliament can understand the situation and be convinced to take the issue forward. This initiative can be supported by the BEST-AC as a way of ensuring that this process is completed.
- TASGA to sensitize its members on the regulatory issues of concerned and ongoing initiatives to address them. The main advantage of this is to gain support of the members and increase their commitment to the association.
- TASGA/SUGECO to mobilize resources from other sources to complement BEST-AC support to move this issue forward. The main purpose is to lobby for the change as the problem is clear and the impact has been measured.
- TASGA should strengthen its relationship with SBT and TSPA and complement the initiative of the SBT to address the issues related to sugar industry.

Appendix 1: List of resources reviewed

1. International Sugar Organization (ISO), 2011, 2012
2. Illovo (2010) Sugar Report
3. Mwinuka (2011), Determinants and Performance of Sugar Export in Tanzania
4. United Republic of Tanzania Report (2002)
5. The World Sugar Trade (2002), Trade Union Briefing Note and Recommendation
6. Tanzania Sugar act of 2001
7. Rabo-bank report on Tanzania sugar industry
8. TPSA sugar production and export report
9. Brazil sugar cane pricing model report
10. Report of the committee on the regulation of sugar sector in India : way forward
11. Uganda sugar policy.
12. Jamaica intervention in sugar industry, Report of 2009

APPENDIX 3: LIST OF PERSONS INTERVIEWED

No	Name	Position	Telephone	Organization
1	Dr. Anna Temu	Chairperson /Agricultural Economist	0755 534436	SUGECO/SUA
2	Mndeme	Deputy chairperson	0787360004	MOA
3	Ambassador Fadhili D.Mbaga	Executive secretary	0713788285	Tanzania Sugar Producers Association

4	Mathew M.Kombe	Chief executive Officer	0763320789	Sugar training and research Institute
5	Deodatha Mutagonda	Manager, Agriculture window	0786 056559	Tanzania Investment Bank
6	Adelitha Kibuga	Senior Officer, Agriculture window	0784 458234	Tanzania Investment bank
7	Buzingo ,Lusomwa.M	Ag.Director Legal and Regulatory services	0784 708386288	Sugar Board Of Tanzania
8	Jofrey kemiti	Manager and administrator		MOA
9	Eng.Msafiri	Regional irrigation advisor		RAS Kagera
10	Mr.Wilson Kagombora	Regional agriculture officer		RAS Kagera
11	Edward Mujungi	Human resources manager	0784860341	Kagera Sugar Company Ltd
12	Mr. Nditi Omary	Operations manager	0786328324	Kagera Sugar Company Ltd
13	Mr. Anas B	Secretary	0787412040	Kagera sugar cane outgrowers associations
14	Donald Nssoko	District treasury	0767984180	DED Misenyi
15	Mr Issa Mdemu	Agricultural Coordinator	0784494990	Sugar Board of Tanzania
16	Peter Buhiye	Chair person of Kasga	0752770166	Kagera Sugar Cane Outgrowers Associations
17	Mr Kihula	Manager Administration and operations	0784512005	Mtibwa Sugar Estate Factory
18	Mr.Manek R.	General Manager	0784900674	Kagera Sugar Company Ltd
19	Mr.Nyembe Msabaha	Chairperson TASGA	0787110611	TASGA
20	Mazengo E.P	Planning officer	255232604237	RAS Morogoro
21	Edwin L.Mpahi	Katibu tawala wilaya		Katibu tawala wilaya ya mvomero
22	Mr.Abdul Mwankemwa	Development and planning		Sugar board of Tanzania
23	Ms Agness Mhando	Legal services secretary		Sugar Board of Tanzania
24				DED Kilombero
				RCGA
				ILLOVO KSCL
				K2-KSCL
				MUSGA
				RCGA
				KACGA

APPENDIX 3: Sugar Industry Agents/Distributors in Tanzania

No	MTIBWA	No	KILOMBERO	No	KAGERA
1	AL Naeem Enterprises	1	Al Naeem Enterprises	1	Mr. Christopher Emmanuel
2	Mohamed Enterprises (T) LTD	2	Kilombero Sugar Distributors LTD	2	Mr. Amir Hamza
3	Tanzania Sugar Distributors			3	Mr. John Hango
4	Birtchand Trading Store			4	Mr.V.H.Shah
TPC					

1	Mohamed Enterprises				
2	Kilimanjaro Native Cooperative Union				
3	Modern Holdings Co. Ltd				
4	Marenga Investment Ltd				
5	Set ways Investment				

Source: Sugar Board of Tanzania (SBT), 2013