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Growing the Sugar Industry in South Africa

Lessons, Justifications and Challenges

Strategic Imperatives for Decision Making

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ACRONYMS

BCR	Benefit Cost Ratio
CBA	Cost Benefit Analysis
EU	European Union
IRR	Internal Rate of Return
KZN	KwaZulu-Natal
NPV	Net Present Value
RV	Recoverable Value
SACU	South African Customs Union
SASA	South African Sugar Association

EXECUTIVE SUMMARY

GROWING THE SUGAR INDUSTRY IN SOUTH AFRICA

LESSONS, JUSTIFICATIONS AND CHALLENGES

INTRODUCTION

Origin of the Study

The National Agricultural Marketing Council (NAMC) appointed Conningarth Economists to participate jointly with the NAMC in conducting research analysis with regard to the sugar industry in South Africa. In accordance with the Terms of Reference (TOR) the broader study entails the historic, current and future financial yield of the sugar industry, as well as its socio-economic development impact and also an analysis of alternative uses for sugarcane.

Objective of the Study

The objective of the study entails:

- to quantify the industry's contribution to the South African economy,
- to provide economic evidence of the contribution of the industry
- to guide policy makers for future strategies & policies and
- to inform government and stakeholders to leverage the industry's potential to achieve its strategic imperatives.

BACKGROUND

State of the Sugar Industry as a Major Economic Multiplier

The sugar industry is one of the largest gross domestic product (GDP) multipliers in the economy and the agriculture sector in particular. The main beneficiaries of these multiplier linkages are agriculture, manufacturing, trade, financial and business services, community services, transport and communication. The production of sugar cane has contributed significantly to the gross value of agriculture production over the last 10 years. The industry has the potential for high growth, employment creation and enterprise development and can make a substantial contribution to government's strategic imperatives.

Challenges in the industry include lack of protection and unfair trade practices, slow land claim processes and post-settlement support, ever-decreasing returns, the rising real cost of production, declining real sugar prices and no revenue and cost optimization linked to no access to fuel ethanol and electricity markets. If sugar cane production is not maintained, the challenges mentioned above will be detrimental to the potential benefit and the role players in the industry, but also many rural communities in the sugar-producing areas of Kwazulu-Natal and Mpumalanga and the economy as a whole.

Need for the Study

Notwithstanding the significant role of the industry, there is a need to get a more holistic view of the industry and its ability to generate welfare. In addition, it is critically important to understand the rate of return on investment in this industry from both a regional and South African point of view. This is necessary because of the high potential of the industry to significantly contribute towards addressing several of the socio-economic challenges faced by South Africa.

Terms of Reference

In meeting the terms of reference, the study entails the following elements, the outcome of which is contained in a separate report (Document) for each element. These reports (Documents) are the following:

- Management Report (this report): Lessons, Justifications and Challenges – Strategic Imperatives for Decision Making
- Document 1 Overview of the Sugar Industry in South Africa: Contribution to Social and Economic Development and Contentious Issues
- Document 2 Comparative Advantage of the Sugar Industry in South Africa
- Document 3 Legislative Environment of the Sugar Industry in South Africa
- Document 4 Evaluation of the Financial and Economic Viability and Macroeconomic Impact of the Sugar Industry
- Document 5 Investigation and Evaluation of Alternative Uses and Products of Sugar, A Cost Benefit and Macro-Economic Impact Analysis

Objective of the Management Report

To present the results of the study in a user friendly manner, the Management Report (this Document) should be viewed as the main report and the other reports (Documents 1 to 5) as technical supporting documents presenting detailed information and the methodologies and results of various analyses conducted in the study. The main findings of these technical supporting documents are emphasised in this Management Report.

The main results and findings of the study are presented in two headings below, namely **major findings** and **strategic imperatives/principles** for the optimal functioning of the sugar industry in South Africa.

MAJOR FINDINGS

In this Management Report, a number of important principles and strategic imperatives are formulated and attention drawn to important facts, pertaining to the sugar industry. These considerations need to inform decisions for the longer term future development of the industry. These strategic imperatives and primary facts attempt to provide a framework and principles to guide the orderly and financially stable development of the industry. This is essential for sustainable growth in the South African sugar industry over the medium to long term.

It should be noted that the strategic imperatives are formulated without considering the possible impact of a 52% increase in minimum farm labour, as determined by government in February 2013.

The South African sugar industry is institutionally well structured and organized. It makes a significant and indispensable contribution to the national economic growth and development. It has a strong social orientation in maintaining and generating job opportunities and income generation for low income households. It also maintains unique comprehensive support structures for commercial black farmers as well as emerging small farmers in sugar cane growing, which lends itself as a starter industry for these farmers. (Refer Document 1, Overview of the South African Sugar Industry, and Document 4, and Evaluation of the Financial and Economic Viability and Macroeconomic Impact of the Sugar Industry). Despite these support systems in the face of rising real costs and declining real sugar prices, the number of small scale growers delivering to sugar mills has declined by more than 50% from 2000 to 2010.

The world sugar market is distorted because of farmer subsidies, limited preferential import quotas and numerous other measures, therefore the world sugar prices do not reflect the true production cost of sugar and therefore value of sugar. South Africa shows a comparative advantage in just one of the industry's sugar producing regions under a distorted world sugar market. However, in an assumed and defined undistorted global market for sugar South Africa shows a strong comparative advantage in the production of sugar cane. Thus, where the global playing field is not level it will be socio-economically and politically unreasonable to expect the domestic sugar industry to leverage its potential without policy and regulatory measures that soften the undesirable effects of a distorted world sugar market. (Refer to Document 2: A comparative economic analysis of different sugar production regions in South Africa).

Analysis of the legislative environment reveals that the sugar sector is subject a complex system of legislative and other regulatory measures operating on four jurisdictional planes, i.e. domestic, regional, bi- and multilateral. Regulatory measures within the various jurisdictions are heavily co-dependent and intertwined, thus challenging any attempt at legislative review. In addition to measures directly aimed at regulating the sugar industry, various acts and policy imperatives have an indirect (and sometimes unintended) impact on the sugar industry, thus creating conflict between general strategic objectives and the special considerations of the industry.

Of particular relevance in this regard, is the interplay between measures aimed at promoting consumer interests and those seeking to sustain and promote job creation. Greater competition (and thus deregulation) are advocated in pursuit of lower prices and greater variety for the consumer. Conversely, if liberalisation is pursued on the local front without reciprocal measures being adopted by regional and international competitors; local industries are compromised at the expense of the country's labour force.

As mentioned above, sugar is traded in a highly distorted market, the functioning of which is not controlled by any one country, however some are more able to manipulate the market than others. When pursuing market liberalisation, particularly through the application of the competition law, the nature of the competition that the industry will be exposed to must be considered, i.e. will it be fair or unfair? In the case of the South African industry, greater exposure to the distorted international market, will lead only to a weakening of the industry's position through no fault of its own as it attempts to compete against subsidised production from abroad. This will exacerbate the disinvestment already experienced by the industry resulting, inter alia, from the inequitable preferential market access measures adopted by the EU within SACU and therefore SADC, as well as non-reciprocal import quotas into the SACU market allotted to non-SACU SADC sugar producing countries.

The discrepancies in the SACU sugar sector regime, between Swaziland and South Africa, are one of the most significant impediments to the industry's development, coupled with the absence of a tariff and lack of access to the EU and other African markets as a result of abovementioned non-reciprocal quotas. The establishment of an independent SACU tribunal pursuant to the SACU Agreement of 2002 will go a long way toward expediting full implementation of the SACU Agreement and it is recommended that this be prioritised.

The SACU sugar tariff operates on a variable tariff formula, and is only activated if the world sugar price falls below a pre-determined level. As a result, the sugar industry is unprotected for the majority of the time. E.g. since 2009 the tariff has not delivered a duty. This is in sharp contrast to the use of a fixed-tariff providing constant protection as is applied in the majority of other sugar producing countries. If the sugar industry is to sustain and retain its market share, tariff protection needs to be maintained.

With regard to regional integration efforts, it is vital for the South African industry to contend for a more reciprocal dispensation than what has been the status quo in both SACU and SADC. The new Africa Tripartite FTA must be utilised to its full potential as far as the South African sugar industry is concerned as it provides both impetus and a platform for the renegotiation of standing trade restrictions outside SADC. If sugar is to be designated a sensitive product within the South African market, clear economic reasons must form the basis of the decision.

International trends, particularly in the G20, with regard to management of commodity price volatility, are of particular interest to the industry. At present G20 efforts are geared toward staple crops, like wheat and maize, however the handling of these commodities may well set the stage for the reform of the international sugar regime as well. (Refer Document 3, Legislative Environment).

The economic analysis showed that the historic real sugar price weakened over the last 14 years and put the industry under strain, with the negative regional impact mostly concentrated in the North Coast sugar cane growing region of KwaZulu Natal, which incorporates extremely poverty stricken rural areas. The analysis included forecasts and assumptions regarding the future reaction of various economic variables, of which the movement of the international price of sugar and the Rand/Dollar exchange rate are of crucial importance. In the preferred scenario developed from a number of alternative scenarios depicting possible degrees of relaxing the marketing regulations, it was assumed that the Rand sugar price would follow the same path as in the recent past and will link closely with the GDP growth and inflation rates in the American economy. The analysis is performed cost constant in real terms linked to the practice of parity pricing and no change in government's supportive regulatory regime over the forecast 20 year period. The analyses showed that the sugar industry on average will be more viable compared to the previous 14 years. (Refer Document 4, Evaluation of the Financial and Economic Viability and Macroeconomic Impact of the Sugar Industry).

Apart from the preferred scenario, alternative scenarios were developed to determine the economic and financial sensitivity of the sugar industry in the event that current market arrangements are relaxed. These scenarios firstly showed that the domestic price of sugar will increase much slower than the assumed domestic price of sugar used for the preferred scenario and, secondly, the lower price of the alternative scenarios will have a profound negative impact on production, GDP and employment. It can, therefore, be emphasised that the preferred scenario would enable the Sugar Industry to hold its share in the regional and total economy in South Africa. (Refer Document 4, Evaluation of the Financial and Economic Viability and Macroeconomic Impact of the Sugar Industry).

With regard to the alternative uses of sugar, the production of ethanol and co-generation of electricity are worthwhile considerations. The sugar industry has the capacity and expertise to make a significant contribution to addressing the energy security needs of South Africa. In the context of global developments with regard to cogeneration and ethanol production and to be globally competitive, you need to have access to the same markets as your competitors. Therefore an appropriate regulatory environment is required for the South African sugar industry to encourage the participation of the industry in renewable energy markets. This is still lacking. The regulatory process initiated for cogeneration is undergoing revision and where provision is envisaged for ethanol production it is limited to new production, which constrains industry participation due to the limited further expansion potential for sugarcane cultivation.

The South African fuel ethanol strategy has always been based on supporting ethanol production through additional measures such as up to 100% tax rebates. The level of support required is dependent on the combination of world sugar and oil prices as well as different exchange rates. The production of ethanol from sugar without support does not seem to be viable at the current relative high world sugar price. Food security is not an issue in the context of sugar cane as ethanol from domestic market sugar is unlikely to be viable for the foreseeable future. Co-generation of electricity from sugar cane bagasse for own use by the sugar mill has been already been implemented and the evaluation confirms this, especially in the context of much higher electricity prices going forward. Electricity generation from high efficiency cogeneration, improved mill steam efficiency and conventional high efficiency condensing generation based on conventional bagasse and additional sugarcane leaves can increase electricity generation by up to 5 times compared to the current generation and should be encouraged in order to utilise the opportunity to add to the alleviation of the present deficit in electricity supply in South Africa. Access to ethanol and electricity will not only improve the value created of the sugarcane value chain but also offer opportunities for improved optimization and reduced cost. Access to ethanol and electricity markets are thus key to the long-term global competitiveness of the sugarcane industry. (Refer Document 5, Investigation and Evaluation of Alternative Uses and Products of Sugar, A Cost Benefit and Macro-Economic Impact Analysis).

Implementing three such markets (sugar, co-generation, ethanol) for full industry growth (see future scenario) can increase potentially supply from1.9 to 2.7 million tons of sugar with the potential of an additional 34 000 jobs. This would bring the South African industry into line with the global trend of modern sugar industries produce sugar, ethanol and electricity on a re-optimised basis.

STRATEGIC IMPERATIVES/ PRINCIPLES FOR THE OPTIMAL FUNCTIONING OF THE SUGAR INDUSTRY IN SOUTH AFRICA

The strategic imperatives below were not structured in a specific format but follow the sequence of the technical reports (Documents 1 through 5) so that the strategic imperatives analysis can be considered with reference thereto. The context of these strategic imperatives is contained in these technical reports and is ***formulated to represent the conclusions of the consulting team***. The context of each strategic imperative is summarised in terms of its status and strategic imperative and referenced to the relevant preceding report.

POLICY/REGULATIONS AND THE TRADE ENVIRONMENT THAT IMPACT ON THE SUGAR INDUSTRY

(Refer Document 1, Overview of the South African Sugar Industry.)

STRATEGIC IMPERATIVE 1: Given the distorted nature of the Global Sugar Market the South African sugar industry operates within a considerably regulated environment so as to support optimal development	**Status**: The industry has adapted to changes in the regulatory, political and marketing environment. The institutional structure developed over time and the accompanying regulations function within the context of a number of acts, agreements and protocols (Refer Document 3, Legislative Environment of the Sugar Industry).
	Key Issue: Continued regulation of the industry has allowed the industry to survive in the context of the world market and as such has become a prerequisite for the optimal development of the South African sugar industry. With reference to the upcoming Tripartite Free Trade Area (TRI-FTA) and because both SACU and SADC are net-sugar exporting regions, negotiations should ensure that sugar producers within SACU benefit from the creation of the TRI-FTA, whilst at the same time taking into account the absence of policy harmonisation in the wider region and preventing destructive competition from world sugar prices that have been manipulated through subsidising of production, as well as import quotas by other countries.

INSTITUTIONAL FRAMEWORK

(Refer Document 1, Overview of the South African Sugar Industry.)

STRATEGIC IMPERATIVE 2: The mutually dependent relationship that exists amongst sugar cane producers and millers in the industry should be fostered and strengthened

Status: A cooperative, mutually beneficial and interdependent relationship exists amongst the sugar cane growers and millers, especially regarding the transport logistics and costs from the growers to the millers. In terms of handling and transport, sugar cane is a bulky and costly commodity. Sucrose levels within the cane also decline quickly once harvested. As a result the sugar mills are situated in close proximity to the sugar cane fields. As a consequence the viability of sugar mills depends heavily on consistent and sustainable delivery of sugar cane and the growers in turn are equally dependent on the viability of the mills, since the closing down of a mill has immediate negative impacts on the growers in terms of additional transport costs over longer distances to alternative mills (in most cases making sugar cane production un-economical if it is located too far from a mill).

At an institutional level, growers and millers are heavily dependent on the SA Sugar Association, in which they are equal partners, to oversee and administer the partnership amongst them. In its important coordinating role, the Association maintains a number of programmes and support structures (which will be referred to later in this document) and are indispensable for the effective functioning of the industry.

Key Issue: A breakdown in trust and working relations amongst stakeholders as well as watering down the role and functions of institutions in the industry, will be to the detriment of the industry and the country. Such collaborative practices should take place within the ambit of the Sugar Act which is under revision and will be informed by the Competition Act.

STRATEGIC IMPERATIVE 3: The maintenance and extension of functional support structures provided and funded by the sugar industry is critically important for the future viability and sustainability of the sugar industry

(Refer Document 1, Overview of the South African Sugar Industry.)

Status: The South African Sugar Association (SASA) coordinates the relationship between the different comprising associations, the South African Sugar Cane Growers' Association and The South African Sugar Millers Association, to ensure the proper functioning of the industry with regard to the growing and milling of sugar cane, human resource development and social responsibilities.

In the value chain, from the extension services to growers through to the markets, the support structures provided by the sugar industry comprise a fully-fledged support system including research; laboratory services; specialist external services; human resources; training; information management systems; financial services; and industry affairs. The various divisions of SASA thereby support and promote the South African sugar industry through interaction with local and international stakeholders in the global sugar industry and keep the local industry abreast of important developments in the supply, marketing and pricing issues in the global market, as well as relevant domestic developments. These support structures are made possible with funding obtained through a levy system from within the industry.

Key Issue: For optimal technical reasons it is imperative that the industry maintains its coordinating role and the organisations/components of the sugar industry work together as a close knit family. Sugar industry strategies and conduct, as well as legislative processes, should take cognisance of the strategic role of industry associations to ensure that future strategies, conduct and legislation will not impact negatively on the support structures and thereby disintegrate the existing cohesion.

ECONOMIC AND SOCIAL CONTRIBUTION

(Refer Document 1, Overview of the South African Sugar Industry.)

STRATEGIC IMPERATIVE 4: The sugar industry makes a significant contribution to upstream and downstream activities with regard to economic development and sustaining job opportunities, on a national and sectoral level and the sugar industry should be nurtured

Status: The sugar industry is a diverse industry making an important contribution to the national economy, in terms of foreign exchange earnings, high employment, high per capita incomes and linkages with support industries and customers. Foreign exchange earnings amount to an estimated average of R2.5 billion annually. Sugar cane is the 6th largest agricultural product in South Africa contributing between 0.5% and 0.7% of the GDP. Per capita income in sugar producing areas is on a higher level than that of other agricultural sectors (Conningarth calculations).

High employment is generated directly, indirectly and induced, of which direct employment on the farms is around 93 900 jobs per annum as calculated by Conningarth Economists using econometric models and industry statistics. Indirect and induced employment are estimated to be around 19 000 jobs, giving a total of 113 009 employment opportunities.

This employment impact of 113009 represents about 0.9% of the total employment in South Africa, about 5.1% of the total employment in the KZN and Mpumalanga Lowveld[1] regions and 18% of the total agricultural employment in South Africa. It is important to note that these percentages are higher than those of GDP mainly because of the relative labour intensity of the sugar industry, compared to other large agricultural crops like maize and wheat production, or in the livestock production sectors, beef and mutton.

Because of the specific Econometric model used in this study, this number only takes into consideration backward linkages. However, a previous study by Professor J McCarthy who also took into consideration forward linkages estimated the total number of indirect and induced jobs sustained by the Sugar Industry at 350 000. Linkages are maintained with support industries in sugar cane farming and milling areas as a result of direct contribution by the industry, through SASA, to maintain the support systems.

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[1] Total number of jobs in South Africa is 12 364 243 and in the KZN & Lowveld region is 2 185 478.

Community Survey 2007, by Province, Population Group and Employment.

Abstract of Agricultural Statistics: 2011"

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However the number of dependents on the sugar industry is as important as the workers themselves, in the poverty stricken rural areas of KZN and Mpumalanga Lowveld. The reality is that it is only the sugar industry that has invested extensively in these areas with accompanying large scale industrial investments. If the number of dependents on the sugar industry is calculated, then 4 dependents per employee give a total of 400 000 dependents on the sugar industry using the NAMC numbers. The number 4 is in line with the latest census figures as released by Stats SA. However, the sugar industry is mostly situated in the deep rural areas where the KZN figures indicate a dependency of over 5 people per employee which indicates a dependency of nearly 600 000 people. This will be people who will be without any income or food in the event of a sudden decline in the sugar industry.

Key Issue: Addressing market regulations to leverage the considerable economic and social contribution of the sugar industry should take cognisance that changes in market regulations that ignore (i) that the global sugar market is highly distorted and (ii) the regional beneficiation afforded to South Africa's neighbours' to the EU market; may have unfavourable impacts, not only on the industry, but the national economy as well.

STRATEGIC IMPERATIVE 5: The sugar industry's pivotal role in the growth and development of the communities in the underdeveloped areas in KwaZulu Natal and Mpumalanga Lowveld should be nurtured and supported

Status: SASA's dedicated initiatives in education, health, welfare, small scale farming, development funding, land reform and environmental sustainability, are crucial in poverty alleviation and improvement in the quality of life in the communities involved. The aim of the education programmes is achieved through ensuring that people in and around the cane growing areas have access to quality education and training, made possible by various educational programmes/ schemes. The health programs contribute to the people's physical and mental wellbeing, with the result that socio-economically vulnerable people are supported and helped to become self-sufficient. The emphasis on small scale farming is essential to promoting access to the industry and rural economic viability. The foci on land reform and environmental sustainability are likewise aimed at ensuring the continued viability of sugarcane production and rural livelihoods into the future.

Key Issue: SASA must be supported to maintain its initiatives in contributing to social development and growth in the sugar cane growing areas of Kwazulu-Natal and the Mpumalanga Lowveld.

STRATEGIC IMPERATIVE 6: The sugar industry facilitates an important function in the establishment of financially viable black commercial farmers and must be supported

Status: In 2003, the industry established the Inkezo Land Reform Company, to support the government's objective of transferring 30% of the land under sugar cane into black hands by 2014. Inkezo's main objective was to facilitate transfer of land by identifying sellers and buyers, streamlining the process of land reform and promoting sustainability of the new ventures through outsourced support service providers. The industry's efforts have facilitated the transfer of 21% of freehold land, approximately 70 600 hectares, previously owned by white farmers to black owners. Sugar is the only commodity sector to have achieved this result.

Still, more than 50% of the freehold land under cane is subject to claims in terms of the land restitution programme. The sugar industry is eager for these claims to be resolved and as such it has refocused its support to land reform towards the land restitution process in an effort to speed up the transfer of land while at the same time promoting sustainable sugar cane production on land under transfer as well as land already transferred. Inkezo was incorporated into SASA, and a Land Reform Department was established. The Department focuses on managing and fast tracking the processes of land redistribution and restitution in the sugar sector and on facilitating access to resources made available by stakeholders, notably through governments newly established Agri-business Development Agency (ADA).

Key Issue: The sugar industry's facilitation programme and model should be considered for lessons, which could be applied in the other agricultural sectors of the national economy, in order to improve progress with the establishment of viable black farmers. The continued existence of SASA allows the industry to jointly design and implement such initiatives which is essential to their effectiveness and viability. The efforts of the industry to establish financially viable black commercial farmers should be supported.

COMPARATIVE ADVANTAGE

(Refer Document 2, Comparative analysis of the different regions of the South African sugarcane industry.)

STRATEGIC IMPERATIVE 7: The South African Sugar Industry should have a comparative advantage in an undistorted global market

World Bank and OECD studies (2009, 2010) show that sugar is a distorted global commodity (globally production of sugar is affected by numerous government subsidies and controls). The Landell Mills Commodity study report of 2008 (LMC International Report) indicates that the world sugar price shows a 58% distortion over the recent 10 years. If this scenario is taken into account South Africa shows a very strong comparative advantage to produce sugar cane in an undistorted environment. In the meantime only one region in South Africa has a comparative advantage in the production of sugar cane. Comparisons of similar studies in the past show that South Africa indicates better comparative advantage results, but still needs support for sustainability in the current environment. The industry is taxed by means of levies on fuel, labour laws administrations, and high administered prices which need to be mitigated in proper ways.

Key Issue: The following imperative needs to be address:

- The sector needs intervention and support by an appropriate tariff to be sustainable in the current world scenario.
- The message must be definite and clear towards policymakers.
- The channels to convey the message need to be well researched, clear and specific.
- The industry needs continued research which needs to be funded by government and industry.

LEGISLATIVE ENVIRONMENT

(**Refer Document 3, Legislative Environment of the Sugar Industry.)**

STRATEGIC IMPERATIVE 8: Strike a balance between competing liberalisation and development objectives with long term goals in mind

Status: The Sugar Act 9 of 1978 lays the legislative foundation for the regulation of the South African sugar industry. The sugar industry operates within the ambit of the DTI, however, article 21 of the Competition Act 89 of 1998 provides for joint jurisdiction of the Competition Commission or 'any other regulatory authority for an economic industry' in the RSA. The existence of the Sugar Act exempts the local sugar industry from:

- Trade liberalisation obligations under the Marketing of Agricultural Products Act 47 of 1996; and
- Provision of the Competition Act regarding allocation of market shares, surplus removal, price determination and revenue sharing (chapters 2 and 3).

The Sugar Act is in the process of being revised. The DTI's stated goal in revising the Sugar Act is two-fold:

- To establish a positive legal position providing for approved elements of government intervention as opposed to supporting an 'enabling position' that sanctions regulatory intervention by the industry as is currently done under the Sugar Industry Agreement'; and
- To optimise the level of competition that can be generated within the policy restrictions imposed by a severely distorted global market for sugar'.

Key Issue: Legislative measures, such as the Competition Act and the recently effected Consumer Protection Act 68 of 2008, are geared toward consumer interests, while policy instruments, such as the New Growth Path and the National Industrial Policy Framework are focused on job creation. In its efforts to expand the economy and improve the position of consumers, it is important for executive authorities to consider that consumer vulnerability and food insecurity tend to go hand in hand with low skill levels and unemployment.

While sugar is not considered a dietary staple, it is still regarded as part of the country's food security strategy and the sector plays a significant role in generating employment and rural development in some of the RSA's most underdeveloped areas. The debate regarding the pros and cons of agricultural liberalisation rages on and while opponents of the current sugar regime abound, it is important for policy makers and industry stakeholder to take cognisance of the idiosyncrasies of the sugar sector, both with regard to production and market conditions.

Furthermore, it is necessary to ensure that substance takes precedence over form as far as either regulation or liberalisation are concerned, i.e. to take steps based on sound economic considerations as opposed to policy trend setting, political rhetoric or broad, positivistic application of measures.

STRATEGIC IMPERATIVE 9: Prioritise the full implementation of the 2002 SACU Agreement, particularly with regard to establishment of a tribunal

Status: South Africa is a member of SACU and SADC, with sugar being regarded as a sensitive commodity in both trading blocs. With regard to SACU, South Africa and Swaziland are the only sugar producing countries in the customs union, yet due to a lack of policy harmonisation and the fragmented approach of the EU with regard to SACU trade relations, the South African sugar industry is one of several sectors deriving very little, benefit from SACU membership. It may even be fair to say that at the present juncture, no common market exists for sugar within SACU, and by extension, SADC.

Key Issue: Of particular importance is the full implementation of the 2002 SACU Agreement along with the establishment of the SACU Tariff Board and Tribunal and policy harmonisation as all agreed by member states. Despite calls for integration since the coming into force of SACU 2002, members have continued to pursue protectionist measures in support of significant sectors, and particularly with regard to sensitive agricultural products. While arguments exist both for and against the legitimacy of such policies, the fact remains that perpetuating protectionism between SACU members violates the spirit of the agreement, if not the letter of the law. In the absence of an authoritative judicial organ, however, precedent is virtually impossible to establish.

This lack of certainty with regard to practices that potentially contravene the customs union agreement, and lack of progress on policy harmonisation are creating conflicts of interest within SACU, resulting in discord between members to the detriment of regional integration and relations with third parties, notably the EU, and may even threaten SACU's standing before the WTO. The EU for example has made different trade offers on some sectors to the same members of SACU, including sugar, even though the parties are all members of a long standing Customs Union.

Furthermore, failure to establish an authoritative body to test and decide on members' conduct under the Agreement is a fundamental impediment to overall progress toward harmonisation within the customs union. While the SACU Council and Secretariat propagate negotiation and consultation between members when disputes arise, this is not a substitute for an established forum to resolve disputes. Under the current regime, resolution is therefore often thrust into the political sphere of member states.

STRATEGIC IMPERATIVE 10: Ensure that the SACU tariff is set at a realistic level taking into account the distorted world market and international production cost

Status: Presently administered by ITAC, the SACU tariff is employed to provide protection against an influx of cheap imports from the distorted world market. The tariff is based on a variable formula which often does not provide the same degree of protection a fixed tariff would, as it is only activated when world prices fall below the level to be determined by the formula.

Key Issue: Over the past several years however, the tariff has only been activated for a few months in total, thus increasing import competition in the local market and exacerbating exposure of the local industry to depressed world prices if products cannot be offset domestically. Arguments regarding the advancement of importers and value-add industries have been forwarded in an effort to lower the tariff threshold, however this would only weaken the South African sugar industry's position, increasing the rate of disinvestment already experienced due to high levels of import competition from Swaziland and the rest of the world. This is exacerbated by a lack of any substantial preferential access to export markets to offset losses, as enjoyed by the majority of other sugar producing developing countries the world over, and specifically other African sugar producers.

STRATEGIC IMPERATIVE 11: Insist on WTO complaint treatment of SACU and SADC negotiations with the EU

Status: South Africa is a party to a number of bilateral trade agreements, both in its own sovereign capacity and as a member of SACU. The most contentious of these as far as trade in sugar is concerned, are the TDCA between South Africa and the EC and the SADC-EC IEPA. In this instance, the industry is excluded from market access provisions contained in the SADC-EC IEPA concluded at the end of 2007, however Swaziland is not.

Key Issue: This piecemeal approach of the EU with regard to its treatment of SACU members is eroding the integrity of the customs union and also threatens to violate the provisions of GATT article XXIV regarding trade negotiations with customs unions. South African negotiators must take a firm position with regard to discrepancies in the EU's treatment of South Africa and Swaziland and insist that these be remedied in accordance with multilateral agreements.

STRATEGIC IMPERATIVE 12: Endeavour to promote the sugar industry's position within the Africa Tripartite FTA

Status: In an effort to curb the fragmentation of multiple Free Trade Agreements in the region, an overarching FTA, known as the Africa Tripartite Agreement, between SADC, COMESA and the EAC is currently under negotiation. Leaders of member countries are engaged in talks regarding the harmonisation of policies and programmes in the areas of trade, customs and infrastructure development among the three existing trade areas. If successful, the new Free Trade Area will open markets quite literally from the Cape in South Africa to Cairo in Egypt, spanning 26 countries with a combined GDP of US$ 624 billion and a total population of 527 million people.

Key Issue: Once again, sugar is poised to become a point of contention in the Tripartite FTA negotiations, yet the South African industry can do much to improve its position, provided that the existing difficulties in SACU and SADC with regard to the EU market are resolved. No clear definition exists for the designation of a product as 'sensitive', however it is generally regarded as referring to strategic economic sectors which stand to be negatively impacted by trade liberalisation.

It must be borne in mind that to be worthwhile, trade agreements must provide the greatest good for the greatest number. However, the fact that some firms and economic sectors will be unfavourably impacted is largely inevitable. This is not to be regarded 'collateral damage' so to speak, but instead requires government to formulate and implement strategies to assist those who may bear the brunt of adjustment and to provide protection by way of clearly defined policy tools where losses heavily outweigh gains. To ensure an equitable distribution of benefits derived from trade agreements, parliament must play a pivotal role throughout the negotiation and implementation process to help harmonise potentially adversarial needs of national self-interest, of domestic constituencies and of civil society.

STRATEGIC IMPERATIVE 13: Keep track of developments in international regulation of trade in agricultural commodities

Status: The G20, previously chaired by the then French head of state, Mr Nicholas Sarkozy, has marked agricultural trade and price volatility in particular, as a top priority. While visiting French farm areas on 25 November 2010, Pres. Sarkozy listed the three key issues that are at the heart of the G20's operations in 2011:

o Firstly, to make progress on regulating agricultural commodity markets through the control of commodity derivative products to restrict the speculative trends observed in 2007 and 2008;

o Secondly, to promote agricultural market transparency. According to Mr Sarkozy, 'not a single international entity is currently able to assess the reserves of agricultural products in the world, in particular regarding grain'. He further indicated that this lack of transparency is one of the cause of speculation and volatility of agricultural commodity prices; and

o Thirdly, to address the viability of establishing a world organisation for agriculture, whose objective it would be, inter alia, to take stock of production prospects in the various regions of the world.

Key Issue: While the implementation of these measures is still in the proposal stages, the clear sentiment is that unrestrained free trade is no longer at the heart of international agricultural policy direction. As stated previously, it is of crucial importance for the South African agricultural sector, including sugar, to be strategic in its pursuit of liberalisation with food security and competitiveness at the core of the decision-making process.

While it is important to tailor policy and strategic objectives to local needs, the fact stands that with globalisation presenting an ever expanding array of issues requiring multilateral approaches to resolve, serious divergence from international strategy at this point will only result in fragmentation and ultimately marginalisation of the industries involved.

SUGAR INDUSTRY SUPPLY CHAIN

(Refer Document 4, Evaluation of the Financial and Economic Viability and Macroeconomic Impact of the Sugar Industry.)

STRATEGIC IMPERATIVE 14: Transport and other logistical aspects play an overwhelming role in the extension of the industry and the optimisation of the supply chain must be considered when examining the industry

Status: Profitable sugar cane production is associated with high transport costs making it difficult to transport over long distances and resulting in most of the cane fields situated in rather close proximity to the mills. Since there are a number of role players included in the supply chain, including cane growers and millers, there must be detailed and on-going discussions regarding transport variables and related logistics before marketing arrangements are concluded, since these role players are interdependent and even though SASA manages these agreements.

Key Issue: For a sugar mill to operate profitably a certain minimum volume of cane is a prerequisite. If a specific mill has to close operations, the local communities will be impacted negatively through job losses and the related social support services and in most cases sugar cane production will stop altogether if the alternative mill is too far away from the producers. The intertwined vulnerability of growers and millers with regard to logistical costs and mill capacity utilisation are key elements which must be considered in any intervention with regard to the industry.

MARKETING ARRANGEMENTS DOMESTIC

(Refer Document 4, Evaluation of the Financial and Economic Viability and Macroeconomic Impact of the Sugar Industry.)

STRATEGIC IMPERATIVE 15: Maintaining a competitive market system in conjunction with acceptable levels of market interventions

Status: Within existing Governmental policies and structures, it is currently possible for the sugar industry to maintain a competitive and effective market system. The existing government policy and structures have made it possible for SASA to negotiate effectively for the industry in the changing SACU and SADC neighbourhood, resulting in a specific Sugar Protocol.

However, a changing domestic marketing regime must take into account consequences for the institutional structure and domestic market of the possibility of any moves to establish of a fully liberalised free trade area in SADC or the Tripartite FTA and the accompanying liberalisation that might be envisaged. At present the SACU market is managed as a single entity without the application of any tariffs. However, some provision is made for tariff free imports from SADC countries. The establishment of a full free trade area for sugar in the SADC or Tripartite region can put growers and millers under pressure, especially the cane growers, since three of the South African milling companies in the industry are already producing sugar in a number of SADC countries.

The establishment of free trade areas for sugar in the absence of regional policy harmonisation to harmonise state support and in the absence of reforms to world market distortions would also put pressure on South African domestic prices unrelated to normal market forces, which will impact negatively on the sustainability of cane growers and millers.

Key Issue: It is of paramount importance to maintain a balance between a total free market system and acceptable market interventions by using a tariff structure to maintain the sustainability of the sugar industry.

STRATEGIC IMPERATIVE 16: The vulnerable situation of South African producers be taken into consideration in terms of exposure to the world market

Status: An agreement between SACU and its SADC partners called the Sugar Cooperation Agreement – Annex VII to the SADC Protocol on Trade, allows a certain volume of sugar to be marketed in the SACU market without tariffs. Under the Annex, SADC members that are net surplus sugar producers are granted quota access to the SACU market. The agreement, as revised in 2011, provides that each surplus sugar producing country in SADC is granted a pro rata share of a fixed quota that is equal to the historical quota access enjoyed during the period 2001/02 to 2007/08. In the first year 2011/2012 the original quota was set at 38 681 tons.

Although it is accepted that the marketing arrangements are a dynamic process and volumes change from time to time, it is still an indication of how the market is regulated with South African producers forced to export higher volumes.

Key Issue: It is important that the vulnerable situation of the South African producers be taken into consideration in terms of exposure to the export market in the allocation of import quotas to the South African domestic market. Given the regulation pertaining to the sugar industry in South Africa, any additional imports will by default displace South African sugar onto the distorted world market, because all surplus domestic production must be sold on the world market. As the world market is at most times an artificially low paying market, and any losses from such world market sales are borne by the overall industry, increased imports reduce the income of the entire South African industry and thereby the sustainability of the local millers and growers, which has negative implications for those millers or growers with less capacity to absorb such reduced revenues. The disruptive influence of imports should therefore be limited.

STRATEGIC IMPERATIVE 17: There is an incorrect notion by government and industrial users of sugar that the difference between the world price of sugar and the domestic price is due to manipulation of the domestic price by the sugar industry

Status: There is an incorrect perception by government and industrial users of sugar that the difference between the world price and the domestic price of sugar is due to the regulation of the domestic price by the sugar industry.

However, in the South African context, Government's strategic support for the sugar industry recognizes the distorted nature of the world market for sugar, and the severe impact of producer support measures on price determination on the global market. Based on these considerations government support includes intervention in the following areas:

- Tariff protection against disruptively low world sugar prices.
- Provision for the establishment of equitable export obligations for millers and growers.
- The Sugar Cooperation Agreement between the members of the Southern African Development Community.

This support is endorsed in the Department of Trade and Industry and the South African Sugar Industry's Joint Strategy for the Optimal Development of the Sugar Industry within the South African Customs Union (SACU) and SADC Context.

In addition, the regional sugar market of SACU (South Africa, Swaziland, Lesotho, Botswana and Namibia) is managed as a single entity by the Government and the Sugar Industry, to which entry is controlled by a tariff system. The SACU countries are also members of the enlarged entity called Southern African Development Community (SADC). Through trade agreements between SA and its SACU partners a certain volume of sugar is allowed to be marketed in the SACU market without implementing the tariff regime (the Annex VII to the SADC Protocol on Trade).

Key Issue: The perception that the difference between the world price and the domestic price of sugar is due to the regulation of the domestic price by the sugar industry is not correct. The price formulation mechanism is necessary in the sugar industry to protect the domestic market against unfair trade practices in the world market.

STRATEGIC IMPERATIVE 18: South Africa is internationally rated as one of the most cost competitive producers of high quality sugar in the world and should be protected

Status: As a result of South Africa's excellent export structure and agricultural and industrial research platforms, it is rated the 4th lowest cost producer of white sugar per ton out of 22 key sugar producing countries over the period 2006-2010 by a respected global commodity research company. This means that South Africa is a world leader in this sector. The country is highly respected as a sugar producer and has been ranked in the top ten globally for a number of years, a fact that can be attributed to many of the strengths noted in these strategic imperatives. Amongst the 14 mills operating in South Africa, products such as ethyl alcohol, furfural and its derivatives, pesticides (nematicides), animal feed, and natural flavourants are produced, displaying diversity in the highly integrated sugar milling operations.

Key Issue: The industry should explore further exploitation of this competitive advantage.

MARKETING ARRANGEMENTS EXPORT

(Refer Document 4, Evaluation of the Financial and Economic Viability and Macroeconomic Impact of the Sugar Industry.)

STRATEGIC IMPERATIVE 19: The industry's export efforts should be supported and its competitive efficiencies maintained

Status: Global market distortions threaten the maintenance of a profitable and sustainable sugar price on the export market as many countries apply a policy of restricted entry to their domestic market. It is regulated through "preferential quotas" and import tariffs. The net result is that less than 20% of the world's export sugar is traded on the open market. South Africa has to sell nearly its total export volume on this volatile market. The profitability of the industry's exports to the world market is severely affected from time to time by the subsidy-induced oversupply to global demand.

The South African sugar industry exports approximately 40% of its sugar production to the world market at prices substantially below the domestic sugar price. In order to distribute exposure to the world market equitably amongst growers and millers, a redistribution of proceeds is effected via the South African Sugar Association. The Sugar Act and the Sugar Industry Agreement provide regulatory support for the redistribution of proceeds, in conjunction with Government's strategic support as also raised under strategic imperative 13 above.

Key Issue: It is important that the sugar industry's competitive efficiencies be maintained and the responsible Government departments contribute to assist and maintain the export effort of the industry.

STRATEGIC IMPERATIVE 20: During the period 2001 to 2010 the cost has increased at a faster rate than the sugar price and a gap has opened up between the two items. The margin difference has decreased since 2010 and present economic parameters indicate that it will probably stabilise at these higher levels.

Status: Due to the combined effect of increased consumption and the fact that sugar cane is also used in the production of bio fuels, the world price of sugar has increased substantially and will probably stay at these high levels, as long as the crude oil price stays at the present high levels. In the South African context, the high export prices of sugar might, as a consequence, even stimulate exports.

Key Issue: Refer strategic imperatives 16 and 18.

STRATEGIC IMPERATIVE 21: South Africa is excluded from preferential access to the world markets although other SADC members have access to the markets

Status: The South African sugar industry currently does not have access to the EU preferential market treatment as other African producers and therefore already operates at an economic disadvantage. It therefore endeavours to establish preferential access for sugar within the Tri-FTA region (SADC etc.), yet at the same time, to prevent or limit any sugar imports to the SA Customs Union (SACU). South Africa would be most negatively affected in an unfavourable Free Trade area (FTA) as it is at present marketing around 70% of the crop in the SACU market while the rest is exported and sold on the world market, except for around 30 000 tons that are sold under preferential quota in the USA. In contrast, other African producers are able to export 100% of their exports to preferential markets due to the access they enjoy. Since the SADC region is a net exporter of sugar, South Africa would have to influence the Tri-FTA negotiations in order that its sugar producers could benefit from the creation of the FTA, whilst at the same time preventing destructive market competition in world sugar prices.

Key Issue: The expansion of the EU imports under the reform of the EU sugar regime has also led to increased potential for swaps in the region to supply the EU. South Africa as a current non-beneficiary of EU access could be ideally suited to take advantage of this if the final modalities of the Tri-FTA facilitate this. To allow for this, and to take advantage of its competitive advantages together with those of Swaziland, South Africa should push for preferential access for SACU sugar to the Tripartite region. (Document 1 Section 2.1.8).

MARKETING ARRANGEMENTS PRICING

(Refer Document 4, Evaluation of the Financial and Economic Viability and Macroeconomic Impact of the Sugar Industry.)

STRATEGIC IMPERATIVE 22: The import tariff must be maintained until world market distortions are eliminated to protect producers against subsidised sugar.

Status: At present the Sugar Act of 1978 (as amended) and the Sugar Industry Agreement (SIA 2000) provide for the main regulatory provisions within which the pricing of refined sugar in SA takes place:

- An equitable exposure to the world market, and
- A local market proceeds-sharing agreement whereby proceeds earned by the SA sugar industry are divided amongst growers and millers according to the agreed set formula.

The import tariff is set relative to a US dollar-based reference price. The Department of Trade and Industry (DTI) and the International Trade Administration Commission (ITAC) have remained committed to the setting of an import tariff due to the distorted nature of the world sugar market.

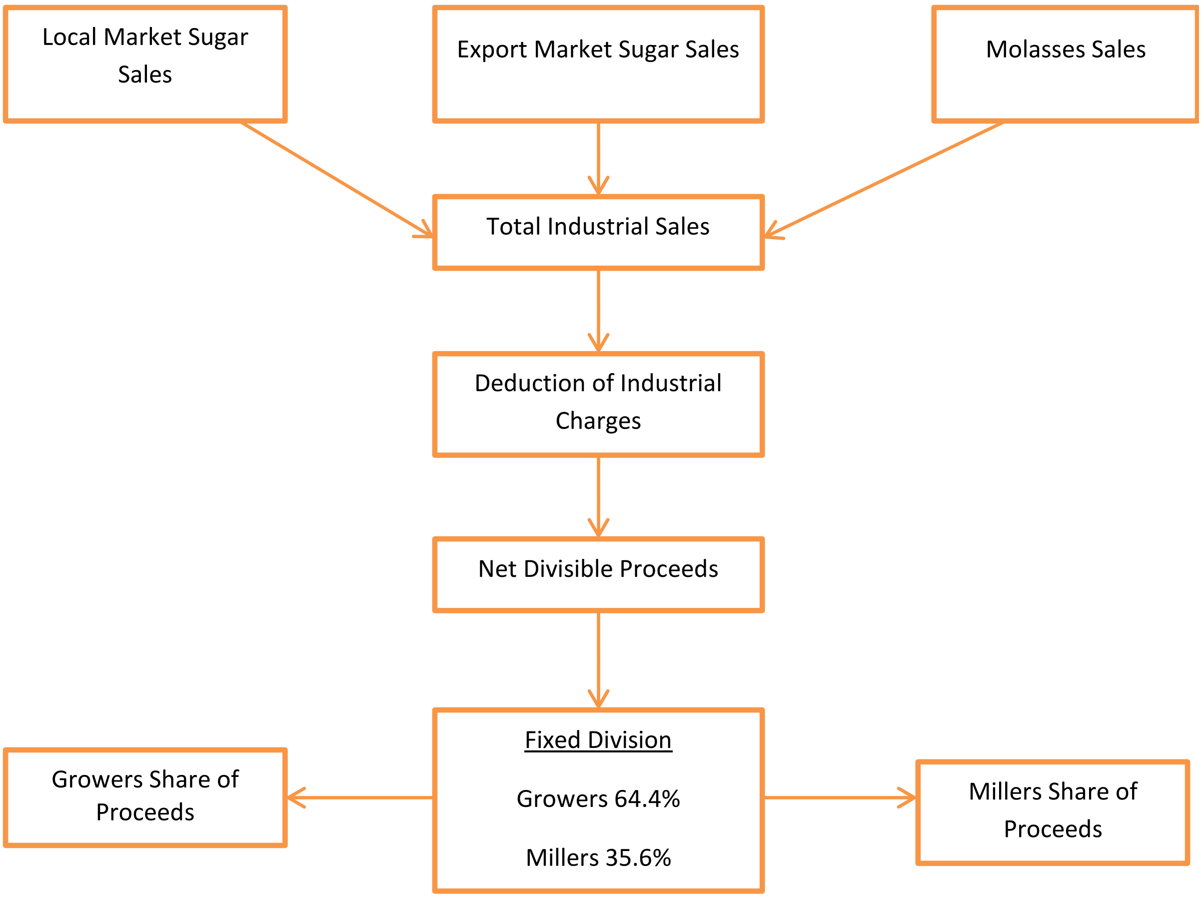
The global sugar price is severely affected by subsidy-induced over production in some of the major sugar producing countries. The large variations in world prices with the world market price for sugar regarded as amongst the most volatile of commodity prices and the exchange rate has an important influence on the final price. High volatility is also caused by the fact of the low level export sugar, only 20%, is traded in the world market.

From the 2010/2011 season to 2011/2012 season the average world price increased by about 6.90 US cents/lb or 35% and decreased again to 18 US cents/lb in 2013. Rand volatility would increase the overall volatility of the world market.

Key Issue: The effective import tariff must be maintained to protect producers against subsidised sugar imports.

STRATEGIC IMPERATIVE 23: There exists an incorrect notion in the market that there is unhealthy collusion in the sugar industry that undermines competition in the sugar industry, due to the fact that a formula exists to divide the gross proceeds between the millers and the growers

Status: The division of proceeds between the millers and the cane producers determine the net payment to the producers and the millers. Total proceeds from the sale of local market and export market sugar and molasses are accounted for to the South African Sugar Association. A Notional Price is used as the basis for calculating the gross proceeds of the industry. The Notional Price refers to the proxy (academic) price determined in the division of the net proceeds and is based on the volume of saleable sugar sold. After deduction of industrial charges, the net divisible proceeds are shared between growers, millers and refiners in terms of a fixed division of proceeds provided for in clause 166 of the Sugar Industry Agreement (SIA). The following diagram presents this structure. The net divisible proceeds are divided on per ton basis and called the "Notional Price".

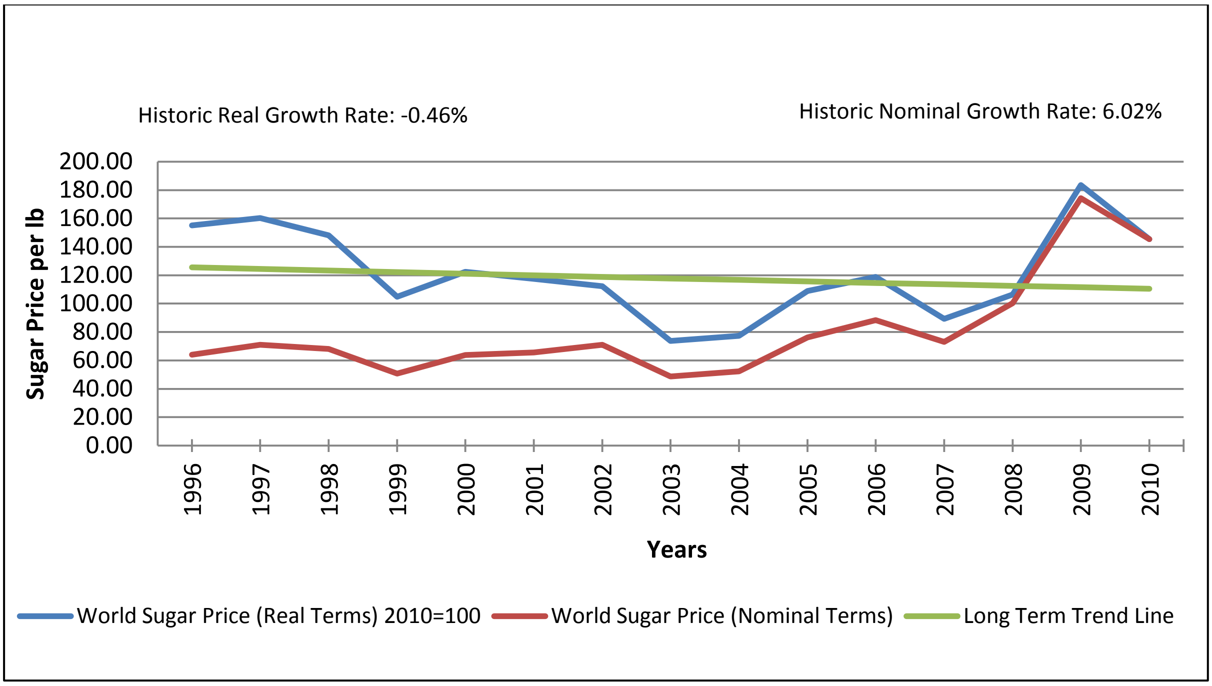


Key Issue: The structure as managed by SASA on behalf of the millers and producers has served the industry well in ensuring a fair division of proceeds and ensuring that especially the cane producers are assured of a platform where prices can be negotiated.

HISTORIC PERFORMANCE

(Refer Document 4, Evaluation of the Financial and Economic Viability and Macroeconomic Impact of the Sugar Industry.)

STRATEGIC IMPERATIVE 24: The sugar industry experienced a decline in real sugar prices over the last number of years prior to 2008, which severely affected the financial viability of the sugar industry



Historic World Sugar Price index, expressed in RSA monetary cents/lb

Status: The profitability and sustainability of the sugar industry depends mostly on the stability of the domestic sugar price over time. The more important price, in the analysis of the profitability of the sugar industry, is the real price (inflation adjusted). The real price has a bearing on the profitability of the sugar industry, as it reflects the industry's own requirements to make profits and to be able to expand capacity. Although the historic nominal world sugar price (in Rand terms) was on the increase at 6.02% per annum over the 14 year programming period, the real world sugar price (in Rand terms) was decreasing at a rate of 0.46% per annum over the same period. The result of this, and the crucial point, is that with the falling real world sugar price, the industry could not make sufficient profits or even expand production capacity (Refer to the graph in

Document 4, figure 6).

Key Issue: The level of the tariff protection mechanism could be considered in terms of a predetermined floor-and-ceiling approach to guard against too high or low fluctuations in the world sugar price, which will be detrimental to the profitability of the domestic sugar industry

STRATEGIC IMPERATIVE 25: The sugar cane growers are more price sensitive than the millers due to their relatively higher operational cost to income ratio, sugar price fluctuations, climatic conditions etc., which has a significant effect on the viability, and specifically their cash flow position

Status: While the entire industry experienced declining real domestic sugar prices, according to the study economic analysis the sugar cane growers were hardest hit, since they are more price sensitive than the millers. The reason for this is of a technical nature and is due to the high cost to income ratio of sugar cane growing relative to that of sugar milling (and their exposure to short and long term drought periods and other climatic variables).

Key Issue: This strategic imperative supports the maintaining of a central negotiated division of proceeds of the notional price.

STRATEGIC IMPERATIVE 26: The sugar industry should be supported in its efforts to remain resilient and viable in the face of unfavourable price tendencies

Status: In spite of the unfavourable real domestic sugar prices historically, the sugar industry in total remained profitable, with a total industry IRR of 14%, including value addition, compared to a benchmark of 11% and a BCR of 1.1 compared to a benchmark of 1.0 (Refer Document 4, Evaluation of the Financial and Economic Viability and Macroeconomic Impact of the Sugar Industry section 5.1.4.1). However, a large number of sugar cane growers suffered significant losses the past number of years in the rain fed production areas because of the prolonged drought, decreased cane yields and low product prices.

Key Issue: Strategic imperative 23 must be read together with strategic imperative 26 as the same imperative applies.

STRATEGIC IMPERATIVE 27: Notwithstanding the general survival of the sugar industry, the decline in the real price impacted negatively on some production regions especially the rain fed areas.

Evaluation Criteria	Criteria Benchmark	Northern Irrigation	Zululand	North Coast	Midlands	South Coast	Total
NPV (R million) Nominal Prices	Must be positive	R 895	R 306	R -937	R 225	R 218	R 706
BCR	Must be > 1	2.21	1.89	-1.09	1.55	1.64	1.24

IRR	Must be > 11%	20%	17%	N/A	25%	20%	16%

Historic Viability of the Sugar Cane Growing Areas during the period 1996 to 2010

Status: Notwithstanding the decline in the real sugar price up till 2008, the sugar cane growers as a whole remained marginally profitable with an IRR of 16% (benchmark of 11%) and BCR of 1.24 (benchmark of 1.0). However, the profits have been slowly eroded over this period due to the deterioration of the real income (inflation adjusted) and rising cost in real terms such as material real increases in energy costs. The combined impact of this and the aggravating impact of the prolonged drought on cane yields had a debilitating impact on the high proportion of small-scale growers on the North Coast region on average and have even made noteworthy losses when compared to acceptable yield benchmarks as shown in the table above.
This forced the rain fed areas into loss making territory and these are also the areas where most of the small scale growers were established in the past. It is however not only the impact on growers and millers that are important, but also the loss of jobs in the rural impoverished areas and the accompanying loss in household income. (Refer Document 4, Table 6).

Key Issue: In the protection mechanism, cognisance should be taken of the sensitivity of the rain fed (dry land) areas to sugar price fluctuations, especially since the growth and development imperative include support to the black commercial farmers as well as the small scale growers on small plots.

FUTURE OUTLOOK

(Refer Document 4, Evaluation of the Financial and Economic Viability and Macroeconomic Impact of the Sugar Industry.)

STRATEGIC IMPERATIVE 28: In view of the current world sugar price tendencies and projected expectations, it seems that in the short term all sugar producing regions will be financially viable if the current marketing structures do not change significantly in a negative way

Status: It is anticipated all regions will be profitable over the future programming period under current assumptions, including favourable domestic and world market prices. As already indicated, the sugar cane growers are the most susceptible to price changes in the sugar industry and a slight price drop can significantly affect the profitability of the sugar cane growing regions.

Evaluation Criteria	Northern Irrigation	North Zululand	North Coast	Inlands	South Coast	Total
NPV (R million)	R 734	R 397	R 1,011	R 485	R 129	R 2,757
BCR	1.14	1.14	1.43	1.24	1.07	1.20
IRR	9%	9%	11%	10%	9%	10%

Future Regional Economic CBA Results for the period 2010 to 2030 (Economic/Constant Prices)

The financial and economic analysis (Ex-Ante Cost Benefit Analysis) portray that the Future prospects of the Sugar Industry, over the period 2010 to 2030, on average will make acceptable profits under the assumptions adopted. Profitability is not only noted on a national basis, but also on a regional basis. The future prospect is based on substantial recovery in sugarcane yields consistent with best farming practice and financially viable growers as well as recovery of sugar cane to supply to fill all mills to capacity. The international raw sugar price was assumed to rise from 19.35 c/lb in 2010 to 31.5 c/lb in 2030 in nominal/current terms with an average nominal sugar price of 28.2 c/lb (and a real average price of 23.5 c/lb) over the period. The input costs were assumed to be constant in real terms over the future scenarios.

Key Issue: Refer strategic imperative 24.

STRATEGIC IMPERATIVE 29: In future the sugar industry will more or less maintain its important share in the country's overall economy provided the underlying price assumptions hold true

Status: As far as the analysis is concerned, the industry's financial and economic viability would reach acceptable levels both on national and regional basis if all the assumptions made hold true and present market arrangements as well as support structures are improved and effective. The scenario is based on full capacity, cane growing under best management practice and effective policy implementation, effective tariff, price assumption holds true and will have high probability with electricity generation and ethanol production.

The industry's IRR and BCR could be 17% (11% benchmark) and 1.37. (1.0 benchmark) respectively (Refer Document 4, Section 6.2.2, Table 20) financial including by-products.

According to the analysis undertaken for the future period of this study, the sugar industry is expected to perform better over the period 2010 to 2030 compared to the historic period, if all assumptions remain unchanged or are not considerably modified, particularly the assumptions relating to the world sugar price and the level of protection on domestic sugar price. GDP could grow moderately over the period 2010 to 2030, by nearly 234% over the programming period if the higher sugar prices could be sustained. On the other hand, additional jobs created could increase by 39% up to 2030. The economic growth of the sugar industry is also dependent on the number sugar cane hectares cultivated and harvested. Increase in the number of hectares harvested would translate into more jobs created and increased GDP (Refer Document 4, Section 6.2.1.1, Table 20).

Key Issue: This strategic imperative highlights a critical point of fact, namely that an appropriate relationship should be established between the world sugar price and the domestic sugar price, i.e. the level of protection against global market fluctuations.

IMPACT OF RELAXING MARKET REGULATIONS

(Refer Document 4, Evaluation of the Financial and Economic Viability and Macroeconomic Impact of the Sugar Industry.)

STRATEGIC IMPERATIVE 30: Profitability of all regions is under threat if the domestic market regulations change in an unfavourable manner

Status: •Relaxing marketing regulations in this context refers to setting the domestic sugar price at a level other than the current estimated standard domestic price. The standard domestic sugar price is set by predicting the future levels of protection in global markets, thus the extent to which the domestic price will tend to exceed the world sugar price (Refer Document 4 Section 6.1.3.1). To estimate the impact of relaxing the current marketing regulations, the domestic price calculated for three alternative scenarios as follows:

- Domestic price equals export price.
- Domestic price equals import parity price.
- Domestic price equals European Union preferential price (Refer Document 4 Section 7.1).

Under the export price scenario, none of the regions meet the viability evaluation criteria. With the Import parity price scenario the regions remain profitable although less profitable compared to the baseline scenario. (Document 4 Tables 24 to 26). Furthermore, a shift to the export price scenario could result in 54% of sugar cane production being lost, while the import parity price scenario will result in a 47% loss of sugar cane production. This could decrease lead to a possible loss of about 61 000 jobs in the rural area of KwaZulu-Natal. A switch to the export price could mean a complete switch to alternative crops (Document 4 Section 7.2.2, Table 27). The loss of sugar cane production could affect the profitability of some of the regions, or the sugar industry as a whole.

Key Issue: The current estimated standard domestic price should be maintained. Cognisance should be taken, when considering relaxing the market regulations that under the export and import parity price scenarios the sugar producing regions could suffer severely.

ECONOMIC GROWTH AND DEVELOPMENT IMPACT

(Refer Document 4, Evaluation of the Financial and Economic Viability and Macroeconomic Impact of the Sugar Industry.)

STRATEGIC IMPERATIVE 31: The sugar industry has a notable macroeconomic impact on the KZN province and the Mpumalanga Lowveld and any negative change in the viability of the sugar industry will have a devastating effect especially on the poverty stricken communities of these areas that are very dependent on the sugar industry

Status: In the historic analysis, the economic growth measured in terms of the Gross Domestic Product shows an additional R4 020 million, which translates to 1.4% of the combined total provincial GDP of KZN and the Lowveld. Also of notable importance is the industry's contribution to the national economy, with a GDP contribution of about 0.32% of the total RSA economy in 2010 (Refer Document 4, Table 10 and Section 5.1.5.1). This is a clear indication of the extent of the positive impact that the sugar industry had on the national and provincial economies historically.

Another important aspect to consider is the industry's linkages with the other sectors of the economy. The economic effects resulting from the activities in the sugar industry (direct effects) constitute about 38% of the overall contribution relative to 62% of impacts that occur outside the sugar industry (indirect and induced impacts) (Refer Document 4, Figure 2). It can be deduced that increased spending by the sugar industry results in significant increased spending by other sectors.

Key Issue: The poor rural areas of specifically KZN will be detrimentally impacted on and most of the new black entrants in the industry can be financially ruined if the future of the industry is not ensured.

STRATEGIC IMPERATIVE 32: Rural employment, small scale and emerging farming production must be safeguarded by protecting the future profitability/sustainability thereof as the sugar industry is labour intensive and creates jobs in areas of the country which are extremely poverty stricken

Status: SASA maintains dedicated initiatives in training, education, health, welfare, small scale farming, development funding, land reform and environmental sustainability, contribute significantly to poverty alleviation and improvement in the quality of life of the rural communities involved.

The numbers as calculated by the SAM based macro-economic model, the Sugar Industry's operations have sustained in total about 113 009 (direct, indirect and induced) jobs in South Africa, of which 93 990 are direct, 7 356 indirect and 11 663 induced. The 93 990 includes 7 000 mill jobs, 1671 industry support jobs, 1 438 large scale farmers and 13871 small scale farmers and 70 010 workers on large scale farms. About 107 721 of the total are located in KZN and the Mpumalanga Lowveld. Of these, 93 996 are direct, 7 356 indirect and 6 369 induced. This employment impact represents about 0.9% of the total employment in South Africa, about 4.9% of the total employment in the KZN and Mpumalanga Lowveld[2] regions and 17% of total agricultural employment in South Africa. It is important to note that these percentages are higher than those of GDP mainly because of the relative labour intensity of the Sugar Industry, compared to other large agricultural crops like maize and wheat production, or in the livestock production sectors, beef and mutton.

These figures differ from source to source and it is necessary that some relevant figures be highlighted and be discussed. As part of research for the study the industry estimated the direct employment numbers at 106 796. This includes 82 816 employees on large scale farms, 7 000 sugar mill employees, 13 871 small scale farmers, large scale farmers at 1 438 and 1 671 for industry support organisations. The industry also estimated 21 915 indirect and induced employment opportunities, providing a total of 128 711 employment opportunities.

The difference between the numbers of this study and numbers provided by the industry is in the direct category (12 806 on the large scale farms), and 2 716 in the indirect and induced categories. The main difference on the direct employment numbers is the use of different multipliers, the industry used the direct multiplier of 0.23 jobs per ha under cane while Conningarth used 0.17 jobs per ha under cane. The 0.17 multiplier was developed using a time allocation per activity and has been applied extensively by Conningarth in different sugar related studies. The industry multiplier can perhaps be further refined by differentiating between irrigation and rain fed production as it appears that they do not use the same number of workers. As far as the indirect and induced numbers are concerned this depends on the macro - economic model used, the NAMC study applied the KZN and Mpumalanga provincial SAM based models, however the difference of 2 716 employment

[2] Total number of jobs in South Africa is 12 364 243 and in the KZN & Lowveld region is 2 185 478.

Data Source**:** Community Survey 2007, by Province, Population Group and Employment.

opportunities between the two studies is a relative small number.

However the number of dependents on the sugar industry is as important as the workers themselves in the poverty stricken rural areas of KZN and Mpumalanga Lowveld. The reality is that it is only the sugar industry that has invested extensively in these areas with accompanying large scale industrial investments. If the number of dependents on the sugar industry is calculated, then 4 dependents per employee gives a total of 400 000 dependents on the sugar industry using the NAMC numbers. The number of 4 is in line with the latest census figures as released by Stats SA. However, the sugar industry is mostly situated in the deep rural areas where the KZN figures indicate a dependency of over 5 people per employee which indicate a dependency of nearly 600 000 people on the wellbeing of the sugar industry. This will be people who will be without any income or food if the industry were to suffer a sudden decline.

(Refer Document 4, Section 5.1.5, Table 10 and 11).

Key Issue: The poor rural areas of specifically KZN will be detrimentally impacted and many thousands of jobs lost and most of the small producers on communal land will stop producing if the future profitability of the industry is compromised.

STRATEGIC IMPERATIVE 33: The sugar industry lends itself as a start-up industry for small and emerging farmers due to established grower support, existing sugar cane processing and immediate access to market provided by industry structure

Status: In promoting black economic empowerment, the Development Fund focuses on supporting emerging small scale growers, especially black growers, to improve their sustainability and growth, while land distribution reform is supported to enable farmers to purchase land and progress in social and economic transformation.

The new farmers have immediate access to support services, a sugar mill and market as part of the structure. The relative ease with which sugar cane can be produced, harvested and an assured market and industry established support programmes, makes the sugar industry to be one of the attractive farming activities for small and emerging farmers. Most recent statistics show that there are over 25 000 registered small scale growers compared to 1 420 registered large scale farmers. However, sustainability of these farmers is difficult in the face of current challenges facing the industry , with the area harvested by small scale farmers is continually on the decline, with around 20 000 hectares harvested by small farmers lost in the last five seasons (2007/08-2011/12). Sugar cane farming alleviates poverty in very poor areas as shown by its impact on low income households.

Key Issue: As stated above, the relative ease with which sugar cane can be produced, harvested, as well as the extensive support services and an assured market make the sugar industry one of the more attractive farming activities for small and emerging farmers and it is necessary that this capability be maintained and the sustainability of such sugar cane farmers be maximized.

NEGATIVE MACROECONOMIC IMPACT OF RELAXING MARKET REGULATIONS

(Refer Document 4, Evaluation of the Financial and Economic Viability and Macroeconomic Impact of the Sugar Industry.)

STRATEGIC IMPERATIVE 34: Unfavourable changes in market regulations should be avoided as these will cause a dramatic decline in the domestic sugar price and profound negative impact on contribution to GDP and employment

Status: If the regulatory environment is relaxed, the domestic price could decrease drastically. It is foreseen that if the domestic price shifts towards the export / import parity price levels, it could have devastating effects on the sugar industry.

When comparing the export price scenario to the standard scenario, R10 203 million in GDP will be lost; while on the employment side 78 742 jobs will be lost by 2030. The import parity scenario has a much better impact, although it is still a negative impact whereby GDP of R6 624 million and 61 000 jobs will be lost by 2030 (Refer Document 4, Section 7.2.2, Table 32).

Key Issue: The above analysis shows the dramatic impact that changes in the marketing situation can bring about and it is necessary that this scenario be avoided.

ALTERNATIVE USES OF SUGAR

(Refer Document 5, Investigation and Evaluation of Alternative Uses and Products of Sugar, A Cost Benefit and Macro-Economic Impact Analysis.)

STRATEGIC IMPERATIVE 35: The use of sugarcane for the production of ethanol should be included in policy via the creation of a mandated market value add process as it will add more stability to the industry and lower opportunity costs through better utilisation of infrastructure.

Status: The need for alternative sources of crude oil and fuel has been a pressing issue worldwide and South Africa is no exception. There is, therefore, a need to consider other viable options of producing substitutes to oil based fuel. Sugar cane is one of the agricultural crops that can be used to produce ethanol. The use of sugar cane to produce ethanol will serve as an important substitution to crude oil, thereby helping to meet the country's crude oil needs. However, the financial and economic viability of such a venture will need to be considered from time to time as it appears not to be financially viable under present prices. . Globally, ethanol production is stimulated through the certainty provided by mandated markets.

Key Issue: Support provided by government is a key variable in determining the viability of ethanol production and would in any event be a prerequisite via a mandated market. Access to ethanol will not only improve the value created of the sugarcane value chain but also offer opportunities to reduce cost and improve global competitiveness of the sugarcane industry. The possibilities offered by ethanol production have a bearing on the strategic imperatives to safeguard and strengthen the sustainability of the overall industry and small scale and emerging black farmers in particular, through improving returns to the industry.

STRATEGIC IMPERATIVE 36: The viable generation of electricity from sugar bagasse and leaves can augment electricity supply in South Africa

Status: Since 2007, South Africa experienced a severe lack of capacity for generation of sufficient electricity, leading to electricity shortages and load shedding. This pressure was partly as a result of insufficient generation of electricity coupled with worsening financial situation. South Africa has also implemented a renewable energy independent power producers procurement program as part of South Africa's commitment to mitigate carbon emissions. Thus, it is important that alternative technologies for generating electricity be considered and cogeneration from sugar cane bagasse and leaves is one such option which at the same time is renewable and low carbon emissions.

Key Issue: Generation of electricity from sugar bagasse and leaves should be encouraged in order to utilise the opportunity to add to the alleviation of the present deficit in electricity supply in South Africa and South Africa's commitment to reduce carbon emissions. The industry requires policy certainty in order to approve the significant investments that would be required. Access to electricity will not only improve the value created of the sugarcane value chain but also offer opportunities to reduce cost and improve global competitiveness of the sugarcane industry. The possibilities offered by electricity generation have a bearing on the strategic imperatives to safeguard and strengthen the sustainability of the overall industry and small scale and emerging black farmers in particular, through improving returns to the industry.

CONCLUSION

The sugar industry in South Africa makes a considerable impact on the national and the relevant provincial economies. It is a large exporter and due to its labour intensive production methods it supplies permanent and temporary work to a significant number of people. The cane growing areas are located in highly poverty stricken areas of Kwazulu-Natal and Mpumalanga and large communities in these areas are totally dependent on the sugar industry. The sugar industry facilitates an important function in the establishment of financially viable black commercial sugar cane farmers.

Currently the sugar industry operates in a regulated environment and to optimise the functioning of the industry a relationship of interdependence exists between the sugar cane growers, the millers and the South African Sugar Association. The notion, that the difference between the world price and the domestic price of sugar is due to the regulation of the domestic price by the sugar industry, is incorrect. The perception in the market is that the sugar industry fixes prices due to the fact that a formula exists to divide the gross proceeds between the millers and the growers. However, the Sugar Act provides for direct competition between millers in the market. The structure as maintained by SASA ensures a fair division of proceeds and that the cane producers are assured of a platform where notional (not actual) prices can be determined for the purposes of cane payment.

The price formulation mechanism is essential in the sugar industry to protect the domestic market against unfair trade practices in the world market. Within existing Governmental policies, efficiently functioning market structures and price forming mechanisms are maintained.

South Africa is rated as one of the most cost competitive producers of high quality sugar in the world. However, even with its competitive efficiencies, the South African sugar industry finds it difficult to export profitably to the world market. The domestic price for refined sugar is based on the principle of import parity, taking into account the influence of the tariff structure to eliminate world market distortions such as foreign government controlled subsidies. In addition, South Africa is excluded from preferential access to EU and other African markets while other regional (SADC) members and even Swaziland are included, reducing the South African industry's attractiveness as an investment destination.

The sugar industry experienced a decline in real sugar prices over the last number of years prior to 2008. However, the sugar industry in general remained resilient and viable despite having had to contend with unfavourable price tendencies. The analysis showed that the historic decline in the real sugar price impacted negatively on the production areas, especially the rain fed (dry land) areas and that the sugar cane growers are more price sensitive than the millers.

Due to the fact that the world sugar price has increased significantly, it seems that in future none of the sugarcane growing regions will be under financial threat if current marketing conditions do not significantly turn negative. As far as the macroeconomic impact of the sugar industry is concerned, it will in future more or less maintain its important share in the country's overall economy, provided the underlying price assumptions hold true. Diversification into ethanol production or electricity co-generation will increase this share.

Unfavourable changes in market regulations will however cause a remarkable decline in the domestic sugar price and have a profound negative impact on the national GDP and employment, i.e. R10 203 million in GDP and 78 747 jobs will be lost by 2030 through its direct and indirect linkages. Sugar cane is the 6th largest agricultural product in South Africa contributing between 0.5% and 0.7% of the GDP. High employment is generated directly and indirectly, of which direct employment is around 93 900 jobs per annum and indirect employment estimated to be around 19000 jobs, with between 450 000 and 600 000 dependents in the rural areas of KZN and Mpumalanga.

It is always essential that an industry investigates opportunities to broaden its market and create more value from the same feedstock. Furthermore, in the case of the sugar industry, by doing this it could also contribute to the alleviation of shortages in the national energy capacity. Generation of electricity from sugar bagasse and leaves should be encouraged in order to fully utilise this opportunity.

The use of sugar for the production of ethanol is financially viable relative to the world sugar price and world crude oil price if supported by government. Support provided by government is a key variable in determining such viability and would in any event be a prerequisite via a mandated market. Access to ethanol and electricity will not only improve the value created by the sugarcane value chain but also offer opportunities to reduce cost and improve global competitiveness of the sugarcane industry. The possibilities offered by ethanol production and electricity generation also have a bearing on the strategic imperatives to safeguard and strengthen the sustainability of the overall industry and small scale and emerging black farmers in particular, through improving returns to the industry and stabilising the industry through different market dynamics of the three main products sugar, electricity and ethanol.

REFERENCES

- SASA Brief to SASA TCS Delegation.
- Draft Report on Establishing the Tripartite Free Trade Area, published by The Tripartite Coordination Mechanism in November 2009; ITC MacMap and ISO (August 2010, tons raw value).
- SASA Industry Directory 2010-2011.
- South African Cane Growers’ Association 2009/10 Report.
- SASA Publications.
- The Cane Grower April 2009.
- Engineering News: SA to study SADC, Comesa, Free Trade Area.
- Internet: One Free Trade Area; Sugar in the proposed SADC-EAC Tripartite FTA.
- The South African Agricultural Baseline: Bureau for Food and Agricultural Policy - 2010: Sugarcane and Sugar.
- SADC Secretariat: Evaluation of an Appropriate Model for a SADC Customs Union- Policy Brief: September 2007.
- A Manual for Cost Benefit Analysis in South Africa with specific reference to Water Resource Development, Second Edition (Updated and Revised), Conningarth Economists for the Water Research Commission, August 2007.
- Abstract of Agricultural Statistics 2012
- Conningarth Modelling and Calculations.
- Data Source: Community Survey 2007, by Province, Population Group and Employment.