CANE GROWING CAPACITY OF THE GROWERS OF SINDH AND ITS CONSUMPTION IN SUGAR INDUSTRIES
A STUDY OF ISSUES AND SOLUTIONS

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ABSTRACT

To identify the root causes of sugar cane yield and analysis the financial problems faced by cane growers of Sindh. The main aspect pertains to the capital required for adopting innovative farms technologies relied on appropriate expertise either comes from farmers own savings or through borrowing and agriculture credit thus comes to be regarded as an essential input in the modern technology. The lack access of financing resources to adopt modern agricultural techniques required for increasing agriculture production. The recurring water storage is posing a serious challenge to the large scale of cultivation of sugarcane being highly water consumption crop. It is in interest of industry and farmers’ to curtail its area, bit promote the cultivation of improved varieties with rational use of inputs and improve crop management. Central bank of Pakistan directed, regarding agriculture credit financing as Salam and Revolving Agriculture Credit financing facilities as regularized conventional and Islamic banks’. The significance of the research survey will, InshAllah, amplify public awareness about the agriculture credit services offered by the banks and agriculture based credit facilities for small farmers and its emphasis will fortify reforms towards better prospects of agronomics; through research and development collaboration will craft the cognizance on the financing opportunities for the agriculture sector to achieve goals of higher growth towards overall prosperity in the country.

JEL CLASSIFICATION: E2, J43, N5, O1, O13, O15, O16, O18, L11, P32, Q14

KEY WORDS: PRODUCTION COST, MACROECONOMICS, AGRICULTURAL LABOUR MARKETS, AGRICULTURE, ECONOMIC DEVELOPMENT, HUMAN RESOURCE CAPACITY, AGRICULTURE; NATURAL RESOURCES; ENERGY; ENVIRONMENT; OTHER, ECONOMIC DEVELOPMENT AGRICULTURAL FINANCE, COLLECTIVES; COMMUNES; AGRICULTURE, RURAL ANALYSIS.
INTRODUCTION

Sugarcane is the fifth largest cash crop growth in Pakistan, which contributes to the agriculture economy a crop value of over Rs 48 billion. Average yield of sugarcane is 44 tonnes against the world average of 60 tonnes per hectare. Pakistan’s Sugar Mills crushing capacity is 84 million tonnes (160 days crushing season) of sugarcane, as stood at seventh ranked amongst world major cane producing countries and three million plus tonnes of molasses, the mills unit have 34 percent unutilized capacity. It is estimated that farmers get 10.20 percent less yield as compared to the experimental yield. The harvesting of the crop starts in the beginning of November in the Punjab and NWFP, while in Sindh the crop is ready in the month of October. In Sindh, due to long growing period, the yield and recovery is better than the Punjab and NWFP (Table-1). Individual farmers, however, have obtained higher yields upto 100 tons per hectare. It provides employment to more than 48.4 percent of country’s rural labour including skilled and non-skilled work force. A lot of research has been done on various aspects of agriculture but unfortunately latest farming practices and techniques for higher recovery rate of cane yield have been evaded, which if adopted, can revolutionize our agricultural economy and place it on sound and stable lines.

IMPORTANCE OF CASH CROPS

Sugarcane is the biggest and most important agro-based industry, which provides employment to the landless rural population and has a great impact on the economy of the country. In several developing countries equally the crop as well as agro-based industry is termed as a vehicle for rural’ strengthen and development. The sugar industry is cyclical in nature. The harvesting of sugar cane is dependent on weather as well as the availability of adequate water. One kg of fertilizer nutrient yields about 114 kg of stripped sugarcane. The sugarcane yield and recovery rates are considered as the determinants of supply raw and refined sugar. With developing populace across the globe and ever-increasing sugar based products, the aggregate demand for sugar is continuously increasing. Sugarcane by-product includes molasses, soda and ethanol etc. The bagasse that remains after sugar cane crushing may be burned to provide both heat – used in the mills - and electricity. It may also, because of its high cellulose content, be used as raw material for paper, cardboard, and utensils. (Sugar Sector Update - March 2010).
**BIGGEST CASH CROP OF THE COUNTRY**

During FY09, the cane yield per hectare account for 51.2MT, resulting in a lower sugar production per hectare yield of below 3.5MT. Despite the volatility and variation in policies by the state, both area and production of sugarcane have improved significantly over the past three decades. Sugarcane has been grown over 1 million hectares in FY2008 and slightly lower at 0.94 million hectares in FY2009. Pakistan sugar industry has been facing raw material, and resources as well as infrastructural problems. Globalization has brought a number of opportunities but at the same time posed certain challenges before sugar industry. Sugar industry in Pakistan is characterized by high production costs. Sugarcane production in the country has augmented over the past two decades with an increase in cultivation area only; whereas no significant efforts were observed in the past to improve the productivity and yield. This entails considerable risk to industry on account of input dynamics. Furthermore, the ultimate output of the industry is dependent on the yield and recovery rates of the sugarcane which traditionally, have been very low in Pakistan as compared to other major sugar producing countries. Sugarcane is one of the most important and biggest cash crops of the country. Pakistan is the fifth largest producer of sugarcane crop among the sugarcane growing countries. However, in terms of sugar cane and sugar yield per hectare, it ranked 21st and 20th among the countries with high yields.

The primary reason for low yield in the industry have been unscientific/unsystematic agriculture practice, conventional planting methods, environmental resistance, cultivating defective varieties, low soil fertility and early/late harvesting. While the reason for low recovery has been short / prolonged duration, over capacity operation and scarcity of inputs etc. (Sugar Sector Update - March 2010).
With increased procurement prices, the raw material cost which is major cog of the total cost of goods manufactured has also surged over the period. On an average the share of raw material cost is about 75% of the total manufacturing cost. The other major cost components are the fuel and power cost; and salaries and benefits, averaging around 3% and 6% respectively during 1990 to 2009. The capacity utilization of the sugar mills and seasoned working days was very low comparing the past two seasons.

The below mentioned data is self-explanatory

Table-1 Average Yield and Recovery of sugarcane in Pakistan

<table>
<thead>
<tr>
<th>Provinces</th>
<th>Yield (t/ha)</th>
<th>Recovery (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Punjab</td>
<td>41</td>
<td>8.52</td>
</tr>
<tr>
<td>Sindh</td>
<td>56</td>
<td>9.26</td>
</tr>
<tr>
<td>NWFP</td>
<td>45</td>
<td>8.09</td>
</tr>
<tr>
<td>Pakistan</td>
<td>47</td>
<td>8.62</td>
</tr>
</tbody>
</table>

Source: Agriculture Statistics of Pakistan, 2000-01 / Pakistan Sugar Mills Association
The low capacity utilization of the mills affected the production cost of sugar; the overall capacity utilization of the mills was 39.40 percent as compared to last year’s 64 percent. The production during 2008-09 ended at 3.19 million tonne short compared to previous year’s production i.e. 32.7 percent. While the crop itself was lower by about 14 million tonnes, the crop utilization by the mills was further reduced because of commercial manufacturing of Gur which has become a lucrative business in the Peshawar-Mardan Valley of Pakistan and being exported tax-free to Afghanistan and onward to Central Asian Republic. The agriculture growth estimated at 1.2 percent as compared with 0.6 percent during 2009-10. Cotton production has declined from 12,913 thousand bales in 2009-10 to 11,460 thousand bales in 2010-11, showing a loss of 11.3 percent. Wheat production has increased from 23,311 thousand tons in 2009-10 to 24,214 thousand tons in 2010-11, showing an increase of 3.9 percent. Rice production has reduced from 6,883 thousand tons in 2009-10 to 4,823 thousand tons in 2010-11, showing a decrease of 29.9 percent. Sugarcane production has increased by 12 percent to 55.3 million tons in 2010-11 from 49.4 million tons last year. Gram production has increased from 562 thousand tons in 2009-10 to 523 thousand tons in 2010-11, showing a decrease of 6.9 percent.

<table>
<thead>
<tr>
<th>Province</th>
<th>2007-08(days)</th>
<th>2008-09(days)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Punjab</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shakarganj</td>
<td>174</td>
<td>104</td>
</tr>
<tr>
<td>Hamza</td>
<td>168</td>
<td>105</td>
</tr>
<tr>
<td>Indus</td>
<td>168</td>
<td>95</td>
</tr>
<tr>
<td>Haq Bahu</td>
<td>167</td>
<td>117</td>
</tr>
<tr>
<td>JDW</td>
<td>165</td>
<td>107</td>
</tr>
<tr>
<td>Sindh</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sanghar</td>
<td>180</td>
<td>132</td>
</tr>
<tr>
<td>Habib</td>
<td>171</td>
<td>120</td>
</tr>
<tr>
<td>Khairpur</td>
<td>171</td>
<td>119</td>
</tr>
<tr>
<td>Larr</td>
<td>170</td>
<td>68</td>
</tr>
</tbody>
</table>

Source: Pakistan Sugar Mills Association, Sindh Zone (PSMA-SZ) Annual Report 2009
Apart from these, four sugar mills, i.e. Habib, Dewan, Mehran and Fauji are working on the development of cane in Sindh, while in Punjab, Shakarganj and JDW sugar-mills are active in the development side of cane. Inspite of all these resources neither could Pakistan produce sugar for export to the international market on competitive rate nor could got rid of import. The case is still waiting for implementation.
<table>
<thead>
<tr>
<th>SECTOR / VARIABLE</th>
<th>UNIT</th>
<th>PAKISTAN</th>
<th>PUNJAB</th>
<th>SINDH</th>
<th>NWFP</th>
<th>BALOCHISTAN</th>
</tr>
</thead>
<tbody>
<tr>
<td>FERTILIZER (OFF-TAKE)</td>
<td>2006-07</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nitrogen</td>
<td>&quot;000&quot; N.Tons</td>
<td>2,648.80</td>
<td>1,784.70</td>
<td>559.60</td>
<td>184.00</td>
<td>120.50</td>
</tr>
<tr>
<td>Phosphorus</td>
<td>-do-</td>
<td>978.70</td>
<td>683.50</td>
<td>215.70</td>
<td>48.60</td>
<td>30.90</td>
</tr>
<tr>
<td>Potassium</td>
<td>-do-</td>
<td>43.10</td>
<td>31.30</td>
<td>8.00</td>
<td>2.40</td>
<td>1.40</td>
</tr>
<tr>
<td>Total</td>
<td>-do-</td>
<td>3,670.60</td>
<td>2,499.50</td>
<td>783.30</td>
<td>235.00</td>
<td>152.80</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>IRRIGATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canal Withdrawal</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>LAND USE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cultivated Area</td>
</tr>
<tr>
<td>Cropped Area</td>
</tr>
<tr>
<td>Forest Area</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FISHERIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
</tr>
<tr>
<td>Marine Fish</td>
</tr>
<tr>
<td>Inland Fish</td>
</tr>
</tbody>
</table>

M.A.F. = Million Acre Feet

Source:  1) Pakistan Statistical Year Book, 2008, PBS
2) Agriculture Statistics of Pakistan, 2006-07 Government of Pakistan
3) Marine Fisheries Department, Karachi

# Data on calender year 2007
EMPLOYMENT GROWTH AND POVERTY REDUCTION

The sugar industry is the second largest industry after Textiles, has a significance and great potential for economic development for the country. Agriculture service sector entails employment growth and poverty reduction are two sides of the same coin. The poor are largely laborers in general and the rural poor earn more from off-farm employment than from their own land. If employment sector grows more rapidly than
labor-force growth, the poor rise their annual employment and wage rates often escalate as well. In Pakistan two-thirds of the total population is rural, as are more-than two-thirds’ of the poor (World Bank 2002). Counting as farmers only those with enough land to provide half the poverty level of income, only half the rural population is small farmers. The rural non-farm population, among which poverty is intense, produces non-tradable goods and services, connotation goods for which the only market is local. Farmers spend half their incremental income on the rural non-farm sector (Bell and Hazell 1982, Hazell and Ramaswamy 1991, Mellor 1992, Mellor 1976). Thus, a rise in farm’s income energies demands for the enormous, employment-intensive, non-tradable, rural non-farm part. Considerable large absentee landowners, so communal in the Sindh, have very different consumption patterns. Their consumption expenditures have high capital concentration and large import content. Raising their incomes does little to reduce rural poverty.

IMPLICATION AND CONCEPTUAL LITERACY FRAME

The research emphasis to acquaint the ambiance of farming community, particularly primary focus on poverty level and literacy rate in Sindh through research and development and also to identify and evaluate financing problems faced by sugar cane growers and required to create awareness on the financing opportunities as well as modern farming techniques. There is a dire need to eliminate poverty of rural sector towards explore the main determinants of upward and downward income and poverty mobility. District Badin, which is among the poorest districts of the Sindh province. Farmers are pronto critical to managing their lives pertains to the farms communal level needs basic and essential requirement to improve their specific needs as well as their cash-crops production system, to increase high cane quantity, awful desire for potential recovery rate of crushed cane and yield with related latest techniques, to improve growers’ literacy rate and many other rapidly changing needs in agriculture sector.

In deprived rural areas, where agriculture activities are affected due to shortage of water and drought, non-farm income opportunities should be promoted by providing necessary infrastructure, skill-set development and formal educational institutions and by extending agriculture extension services by campaigns. These are most important steps towards poverty reduction. Also the initiatives of the Central Bank of Pakistan directed to the conventional and Islamic banks’ to promote major agriculture credits as Salam and Revolving Agriculture Credit Facilities. This research effort will shape the future of farming community particularly in Sindh, through research and development, cooperation and creating awareness on the financing opportunities as well as modern farming techniques. In the end, let me conclude, by these lines of action our agriculture sector of the country, will achieve goals of high growth towards overall prosperity in the country.

The Presidents/CEOs
All Islamic Banking Institutions (IBIs)

Dear Sir,

**ISLAMIC AGRICULTURAL FINANCING FOR FARM/CROP PRODUCTION PURPOSES UNDER SALAM**

While reviewing the implementation status of SBP guidelines on Islamic financing for agriculture issued vide ACD Circular No. 1 dated 3rd February, 2009, it has been observed that difficulties are being faced by IBIs in development of specific products for farm and non-farm sector activities.

Therefore, to further facilitate IBIs and to improve the access of agricultural Islamic financing to the farming community, attached model product based on ‘Salam’ has been developed in consultation with stakeholders. The product has covered the Sharia related aspects as well as business cycle and financing requirements of farm/ crop production activities. The product is supported by practical examples and process flow of the Salam transaction.

IBIs may adopt the model product in the present form or with some adjustments to suit their organizational & operational needs and market characteristics, subject to compliance with SBP regulations and approval from their Shariah Advisor.

Further, IBIs are advised to ensure that their relevant staff possesses the requisite knowledge and expertise about the product. They should also launch awareness campaigns through electronics & print media, seminars, workshops, etc. to ensure that their clients/ farmers are fully educated about the product and familiar with the requirements like documentation, loan limit, process flow/ procedure, etc.

Please acknowledge the receipt.

Yours faithfully,

(Syed Samar Hasnain)
Director

UNQUOTE
AMENDMENTS IN
REVOLVING CREDIT SCHEME (RCS) FOR AGRICULTURE

Please refer to ACD Circular No. 6 dated 9th October, 2003 on the subject.

2. In order to facilitate farming community in repayment of crop production loans under Revolving Credit Scheme based on their cropping cycle, it has been decided that banks may segregate the repayments in two stages i.e. at least 50% of the utilized credit during the year after harvest of each Rabi and Kharif crop instead of existing condition of one time annual clean up for renewal of the facility. Total repayments in the loan account during the year equals to the maximum amount availed/ outstanding during the year shall also be treated as clean up of the account. The payment of mark up and other charges, however, shall be required to be made as per agreed terms & conditions.

3. Further, the date of repayment/adjustment of individual borrower shall be determined by the bank on the basis of crop cycle, harvesting period, etc. in respective areas.

4. Other instructions on the subject shall remain unchanged.

5. Please acknowledge receipt.

Yours faithfully,

Sd/-

(Muhammad Ashraf Khan)
Director
KEY FACTORS AFFECTING SUGAR PRODUCTIONS

The millers faced problems whether there was a shortfall in sugarcane supply or surplus production of sugar. In addition to this other costs i.e. taxes, operating expenses, depreciation and financial cost do not allow any scope of economies of scale. Low level of capacity utilization (around 45 percent) and cost price disequilibrium in domestic and export markets are other impediments. However, persistent increase in sugarcane and export markets is the root cause for the current malady. Therefore, there is an urgent need to examine the deteriorating sugarnomics. While there is an urgent need to increase production of sugarcane, it is also evident that some of the units are not economically viable. They have been just adding losses to their balance-sheet. Therefore an option to explore is the liquidation of such units without further delay. A key factor possesses which has no potential to increase sugar production a clear cut sugar export policy has been missing. Whenever, there was sugar production above domestic consumption millers found it difficult to export the surplus. Export of sugar is not solely aimed at earning foreign exchange but more to optimize cost through higher capacity utilization. The result of lack of policy framework has been responsible for financial turmoil and economic distress for sugar industry during the past six years in succession.

For 2009-10, sugarcane has been shown in the area of 943 thousand hectares, 8.4 percent lesser than last year (1029 thousand hectares). Sugarcane production for the year 2009-10 estimated at 49.4 million tons, against 50.0 million tons last year. This indicates a decline of 1.3 percent over the production of last year. Main factors contributing for lesser production are maximum area under wheat crop during 2008-09 restricted the sugarcane acreage, shortage of canal water, load shedding of electricity, realization of lower prices in the preceding season and high rate of inputs also discouraged the farmers to grow more sugarcane crop. The area, production and yield per hectare for the last five years are given in Table 2 (Ref. Economic Survey 2009-10).
In the Punjab, rice and cotton are the major crops viable with sugarcane, while in Sindh there are alternative crops like cotton, wheat and rice. In the Punjab and NWFP about 90% of the crop is planted in spring and only about 10% in autumn, while in Sindh 70% of the crop is planted in autumn and about 30% in spring. In the Punjab and NWFP the growing period is merely 8-10 months, while in Sindh it goes from 12-16 months. The harvesting of the crop starts in the beginning of November in the Punjab and NWFP, while in Sindh the crop is ready in the month of October. In Sindh, due to long growing period, the yield and recovery is better than the Punjab and NWFP. The average yield of sugarcane on country basis is about 45 tons per hectare, which is well below the world average of 60 tons per hectare and also lower than the neighboring country India, where yield is 60 tons per hectare. Individual farmers, however, have obtained higher yields upto 100 tons per hectare.

**Molasses Production and Ethanol Export**

The sugar production cost in Pakistan is on the high side as compared to other sugar-producing countries of the world. Our cost is even higher than the neighboring country India. As such, the ex-mill price of sugar in Pakistan, which is around Rs 21/kg (2001), sorts it collegial in the international market where the per kg sugar price scales amongst Rs. 9 and 12. The reason for this high ex-mill price is not only the raw material (sugar crops), but also the byproducts, which are not properly utilized by the mills. For instance, molasses, which is one of the main byproducts (Table-13), is being exported at low price instead of value-addition through distillery or in fertilizer or in animal-feed or as gasohol.
The extra power generation by the mill is also not proper. In Queensland, Australia, the sugar-mills supply power to the city for domestic and commercial usage. Today’s world, sugar is pleasant and becoming a by-product while the byproducts are fetching the major products through value-addition process. Filter-Cake which is luxuriant in organic matter as well as phosphorus is beneficial to convalesce soil-health. In Mauritius, the mills supply filter cake to cane-growers free of cost in proportion to the cane they supply to the mills, to improve the organic level of soil for healthier yield and recovery of cane. Here in Pakistan, sugar cake is customarily used to cure bricks, instead of providing it to the sugarcane growers. These aspects, if properly addressed, could positively diminish the per kg cost of sugar and would empower us to develop competitive in the international market, instead of the negative factors which lead to sugar import or bring uncompetitive surplus sugar producer.

**QUOTE** “Cane Crushing Picks Up In Sindh. Dec 10, 2012 by From In-paper Magazine/Dawn.com

During the current season, as of December 3, only 16 mills out of 34 had started crushing sugarcane in Sindh, which delayed the harvesting and consequently wheat sowing.

However, despite controversy regarding prices, the millers are offering more or less Rs172 per 40 kg price of cane to farmers, the indicative rate set by the provincial government.

Small landholders are selling their cane to middlemen only to lose Rs2 to Rs3 per 40kg as they are not issued indent by mills.

Simultaneously reports from upper Sindh indicate that some mills are offering bulk suppliers Rs180 per 40kg. Such rate is usually offered to those farmers who supply cane in larger quantities.

This is in sharp contrast to sugar millers’ earlier claim that official rate fixed by government does not commensurate with the cost of sugar production. The millers are also required to pay quality premium to farmers if recovery of sugar from their cane is above benchmark of 8.7 per cent fixed for the province.
It is calculated at 50 paisa per pint of sugar recovery per 40kg cane. But as millers are in litigation with government at apex court level over quality premium issue since the last one decade, it is not paid to farmers.

PSMA Sindh zone chairman Aslam Farooq is not willing to clarify the industry’s position, but Sindh secretary agriculture secretary, Agha Jan Akhtar, told this writer on November 20 that millers were earlier mulling to move the high court against fixation of sugarcane price.

However, so far no such litigation is reported to have been filed. Since November 20, the number of sugar mills which started crushing has risen to 16 from just three.

The millers had been demanding that, on account of carryover stock of 1.7 million tonnes, they should be allowed export of sugar.

Government in the first instance had allowed them to export 200,000 tonnes of which only 133,000 tonnes was exported until recently.

Then, on November 23 Economic Coordination Committee (ECC) allowed export of another 400,000 tonnes of sugar stock in view of bumper cane crop.

Cane growers have been insisting that government should fix cane price at Rs200 in view of their cost of production which has been worked out by them every year and presented to government on numerous occasions.

However, millers like Wajid Arain, who is former chief of PSMA Sindh zone and owns Ranipur Sugar Mills in upper Sindh, contends that not only the indicative price but sugar’s cost should also be fixed and determined in view of expenses incurred by millers. He is in agreement with farmers’ bodies that a moratorium should be announced over establishment of new sugar mills in Sindh given the fact that existing factories have the capacity to crush cane even if the current production is doubled.

He strongly calls for introducing a mechanism under which cost of sugarcane by-products, like bagasse or molasses, should be determined besides cane price. “While we are selling sugar at Rs48 ex-mill rate, the cost of sugarcane has been increased to Rs172 from Rs152 last year which is unjustified”, he contends.

Sindh Abadgar Board (SAB) general secretary Mehmood Nawaz Shah says that unfortunately PSMA never comes up with data of their cost of per kilogramme of sugar and other products’ expenses in any meeting whenever cane pricing is discussed.

The farmers, says Shah, are willing to share their cost of production on sugarcane as there is nothing to hide. “It is not understandable that you agree to various policy decisions in meeting of stakeholders but when it comes to implementing them you take a different position. What kind of paradox is this? Let us sit together and come up with solution”, he asks and adds that on the one hand, millers claim that their cost of production of sugar doesn’t commensurate with indicate price of sugarcane yet more sugar mills are established and are in pipeline in Sindh.
Belated commencement of cane crushing has become a regular feature in Sindh. Growers are always in a hurry to sell their sugarcane and prepare their land for wheat or winter crop sowing but millers avoid issuing them indent on time. Long queues of tractor trolleys’ carrying sugarcane can be seen outside sugar mills.

“Mill owners contend that sugarcane price of Rs172 per 40kg doesn’t suit them given current sugar price of Rs50 per kg in the market”, says Agha Jan Akhtar. According to him, millers had even resisted price of Rs101 per 40kg (fixed by government previously when apex court had fixed Rs40 per kg sugar price).

Cash-starved farmers are even ready to sell sugarcane at Rs172 without pressing for Rs200 as they suffer from lack of cash flows after failing to get adequate price for their cotton crop this year. According to them instead of stirring up crisis every crushing season the millers should devise a strategy that shouldn’t discourage farming community from cultivating sugarcane.

The sooner PSMA agrees to a formula that determines the cost of sugar and sugarcane every year the better for the sugar industry and farming community.”

http://dawn.com/2012/12/10/cane-crushing-picks-up-in-sindh/"UNQUOTE.

SUGARNOMICS

The research survey meditation on small farmer’s as a largest body associated with agriculture sector. They are more unproductive due to scarcity of land and capital resources. They also lack of skills for creating more marketable surpluses. It has been initio exist. The fact is that the capital required for adopting innovative farm technologies relied on appropriate expertise either comes from farmers own savings or through borrowing and agriculture credit thus comes to be regarded as an essential input in the modern technology. It is in interest of agricultural industry and farmers to curtail its area bit promote the cultivation of improved varieties with rational use of inputs and improve crop management. In my previous research titled ‘Impact of flood on sugar industry of Pakistan’ and ‘Impact of Low-sugar-cane yield on sugar industry of Pakistan’ (IJCRB. March & April 2013 Edition) shown the significance as this area demands attention. No industry can flourish with-out promotional support of research and development. As a result, potential of the sugar industry stayed dormant.

ISSUES AND SOLUTIONS

Due to technological backwardness bears huge losses of stocks in agriculture sector: The reason of low efficiency is that the most of the sugar mills was constructed in early 80’s and enhanced their capacity in early 90’s when it was prevailing technology. I found the reasons of low efficiency are unscientific/Unsystematic agriculture practice. (a) Improper selection of land. (b) Improper preparation of land. (c) Conventional planting methods. (d) Late planting (e) Moisture Stress at critical stage of crop growth. (f) Early and late harvesting. (g) Poor Management of Ratoon crop. (ii) Environmental Resistance (iii) Low soil
fertility (iv) Defective verities (v) Pests, disease and weeds (vi) Credit shortage (vii) Rapid/ Unplanned increase in Sugar cane acreage in unsuitable areas of Pakistan plus due to technological backwardness. Requirement of Latest technologies to mitigate risk factors and steer clear of huge losses of stocks of due to technological advancement the agriculture sectors improved for example of Indonesia, Brazil, Egypt produces the highest yield of cane as compared with other countries.

**Condition of Guarantee is a wall between the growers and financial institutions:** By nature banks want to make secure investment and lending. The small growers in most cases lack documented security or have imperfect security. This is an impediment in flow of bank credit, which is cheap and easy, for the growers. To remedy this situation the growers are compelled to approach the mill owners for providing guarantees to the banks on behalf of the growers. This puts the growers in the exploitative lap of the mill owners. At State Bank level some attempts have been made to provide credit to growers through commercial banks on grower group guarantee for repayment but the growers are not fully aware of the arrangement. In due course of time this will improve the borrowing power of growers. The arrangement visualizes group undertaking for individual repayment.

**Timely availability of seeds, Fertilizer, Water and Pesticides are very important for a better crop of sugar cane:** Pakistan’s yield per acre is lowest in the region and the sugar recovery ratio from cane is also low. The remedy for improving the situation lies in better quality of Seed, Fertilizer, and Pesticides, timely and adequate availability of water. These things are dependent upon availability of funds for which farmer has to come to mill owners whose behaviour is an impediment inflow of credit. The mill shylock owner stalls payment on one pretext or another. Practically all such recourse is avoided because next season also the same set of buyers is to be dealt with.
Growers not able to produce sufficient amount of sugarcane due to water shortage and land degradation: It is estimated that farmers get 10-20 percent less yield as compared to the experimental yield. Keeping in view the importance of sugarcane, present study was conducted for the sugarcane yield of Pakistan. About 50 years ago, both in developed and developing countries, the agriculture sector was overlooked considering it traditional and outdated sector. During 60s, realizing its importance, measures were taken for its development and since then the experts have been emphasizing the balanced growth between industrial and agriculture sector.

Lack of finance is a main hurdle for sugarcane growers: Banks should increase their awareness campaigns through media, radio about easy and cheap availability of credit. The farmers should also organize themselves to negotiate with banks collectively. The commercial banks were directed by the State Bank of Pakistan to adjust by 20/8/1996, the balances of credit made available to the sugar industry against sugar stocks. The action was based on information that the mills were hoarding the stocks. Industry sources, however say that they prepare fortnightly reports pertaining to sugar production, its lifting and stocks. Besides, the mills would never like to hoard the stocks and their priority was to empty their godowns as quickly as possible as carrying a huge inventory meant huge financial cost. Banks should extend their running finance facilities for agricultural purposes on the basis of multiple / Revolving and Salam Agri-finance limits for period of three years, in addition to demand finance (single disbursement) under the Supervised Agricultural Credit Schemes. Banks are now allowed to renew the limits automatically not only on 100 percent adjustment of the previous loans but also in case of partial adjustments if these are regular advances. Banks will not ask for any fresh document at the time of each renewal.
Awareness of financial facilities available for agriculture is very low among the Growers: Both large and small banks are aggressively offering funds to growers on active initiative of State Bank of Pakistan. The rate of interest is very low as compared to the traditional mahajan lending rate of 25 percent to 30 percent with too much of strings. The commercial bank charges between 14 percent – 16 percent on easier terms. But because of lack of knowledge and illiteracy the agriculturist do not have access to the facilities made available by the bank. Banks should increase their awareness campaigns through media, radio about easy and cheap availability of credit. The farmers should also organize themselves to negotiate with banks collectively.
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