THEORETICAL STUDY OF ISSUES RELATED TO SUGAR INDUSTRY OF INDIA

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Abstract

India plays a very vital role in the world sugar production. India has a long history of cane production. The International Sugar Organisation's estimate about 45 lakh tonne surplus in the global market is set to hit the Indian sugar industry in the year 2011-12, including Maharashtra. The Indian Sugar Manufacturers' Association has said that the Indian sugar industry has so far produced 1.04 crore tonne of sugar till January 15 in the current season, which is around 17 lakh tonne more than the production in the same period in 2010. The country's annual sugar production for the current year is being estimated at 185 lakh tonne, as against 130 to 135 lakh tonne last year. Moreover, lower allotment of sugar quota to Maharashtra and Gujarat has pushed up the sugar prices in the local markets. As one of the largest producer of sugar and having the potential to expand, India has to take up certain issues which are hindering the growth of sugar factories. This paper tries to explain these issues and tries to give the recommendations which will be helpful to the co-operative as well as private sugar factories of India.

Key words – Sugar Factories, Cane, Co-operatives, issues, Recommendations

The government of India, Directorate of Sugar has released 45 lakh tones of sugar in free sale for the quarter July-September, 2012

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1. World scenario of sugar production

Sugar, the fourth-worst performing commodity this year, will be under "bearish pressure" as global production exceeds demand for a third year in 2012-2013, according to the International Sugar Organization

A rebound in output in Brazil, the biggest exporter, and improved harvests in China, the largest net importer, and Australia will boost global supply 2.25 per cent to a record 177.4 million tonne, executive director Peter Baron said. Supply will outpace demand by 5.85 million tonne from 5.2 million tonne in 2011-2012 and 1.3 million tonne the year before, he said. Futures have dropped 11 percent this year as prospects improved for the crop in Brazil

World stockpiles will reach a four-year high of 31.6 million tonne at the beginning of 2012-2013, the US Department of Agriculture estimates. China is set to harvest its second-largest crop in the year starting October, lifting production 19 per cent to 13.7 million tonne, the median of nine analyst and trader estimates compiled by Bloomberg show

"Supply will be quite heavy for the market over the next two-three quarters," said Tom McNeill, a director at Green Pool Commodity Specialists, Brisbane, Australia-based researcher. Prices may fall to 17.5 cents a pound, a level that may attract Brazilian growers to switch to making ethanol, he said. That would be the lowest price since July 2010

Raw sugar rose 0.4 per cent to 20.81 cents per pound on ICE Futures US at 5:51 p.m. Singapore time. The most-active contract fell to a two-year low of 18.81 cents on September 6. Sugar is the worst performer this year after coffee, cotton and lean hogs on the Standard & Poor's GSCI Spot Index of 24 commodities

"Taking into account the third year of global surplus with a possible end of the low stocks environment, we think that prices could remain under bearish pressure," Baron said in an interview. The London based ISO analyses and provides statistics on the world sugar market.

Sugar may have "an appreciating bias" into 2013, as Thailand, China, India and Brazil face possible shortfalls in production, Standard Chartered analyst Abah Ofon said last week. Industry researcher Datagro on September 19 cut its production outlook for Brazil's centre south, the world's biggest growing region, to 31.3 million tonne in 2012-2013, from a previous forecast of 32.7 million tonne

Sugar futures may "consolidate" between 18 cents to 20 cents toward the end of 2012, Samson Tam, head of Asia agriculture at Marex Spectron Group, said by phone from Hong Kong on Wednesday. "We still have uncertainties in weather pattern in key producing countries like Brazil, India and Thailand, which may reduce the current surplus," said Tam, who has traded sugar at companies including Hong Kong-based Kerry Foodstuffs and Singapore's Olam International.

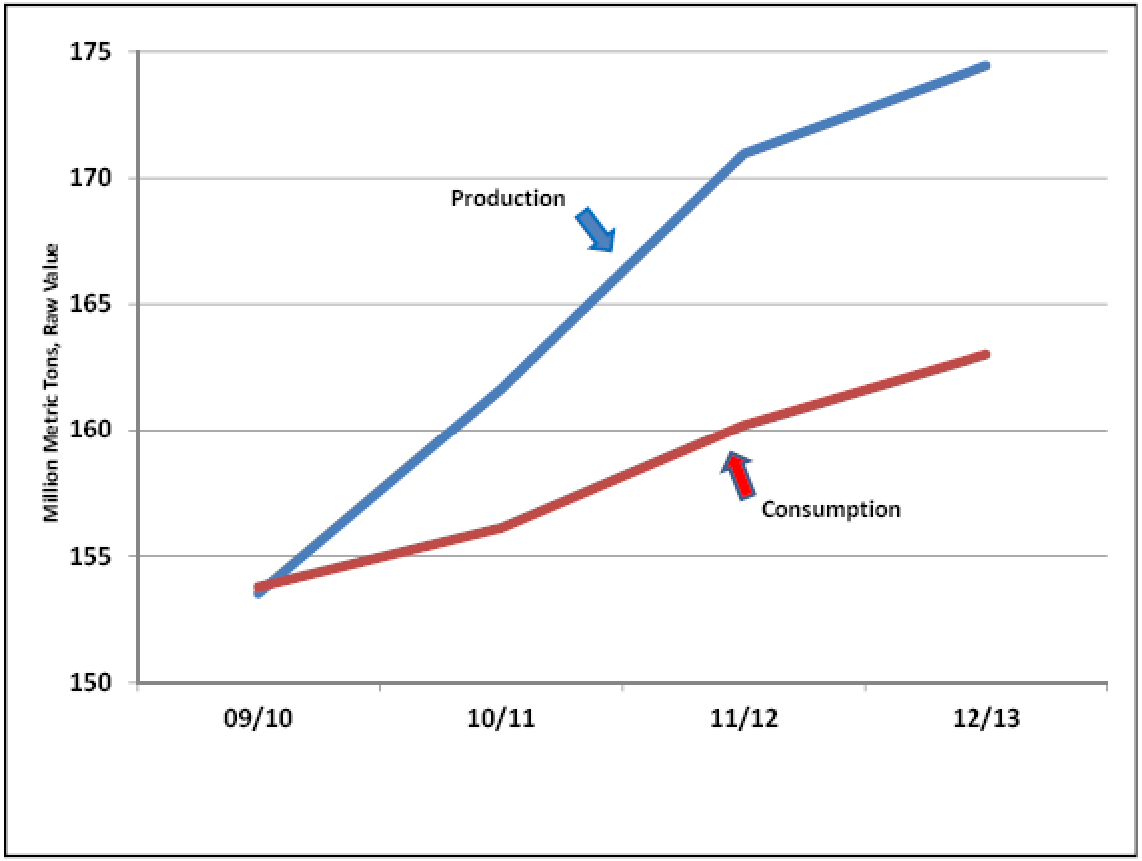
Global export availability is estimated to climb to 54.5 million tonne, while demand for imports may drop to 48.3 million tone, Baron said

Imports by China will fall to 1.95 million tonne in 2012- 2013, assuming no further purchases after rebuilding stockpiles, said Baron. China's net imports in 2011-2012 are estimated at 3.3 million tonne, exceeding US purchases by 25,000 tonne and making it the biggest buyer, ISO data show

Production in India, the second-largest grower, will drop to 26.6 million tonne from 28 million tonne in 2011-2012 because of dry weather, reducing export availability to 2 million tonne from 3 million tone this year,said Baron.

In Thailand, the second-biggest shipper, output will fall to 10.2 million tonne from 10.6 million tonne this year, according to the ISO quarterly report released last month. In Australia, the third-biggest exporter, production will increase to 4.5 million tonne from 4 million tonne a year earlier, the report said.

The harvest in Brazil will rise 3.9 million tonne to 38.1 million tonne in 2012-2013, below the 2009-2010 record of 40.9 million tonne, it said. "So far the crop in Brazil is developing in line with our expectations at the end of August," Baron said.



United states department of agriculture, Foreign agriculture service May 2012,

The following is a table of the world's 10 largest sugar-producing nations for the 2010-2011 crop year. The data, measured in millions of metric tons, raw value, are from the London-based International Sugar Organization.

Country	Production
1) Brazil	38.745
2) India	26.000
3) China	11.475
4) Thailand	10.061

5) U.S.	7.210
6) Mexico	5.495
7) Pakistan	4.400
8) France	4.275
9) Australia	3.800
10) Germany	3.565

"Food and Agriculture Organization FAO's current estimate for world sugar production in 2011-12 stands at 173 mt, relatively unchanged from the November 2011 forecast, but 4.6 per cent larger than in 2010-11," it noted.

Downward revisions in output, mainly in Brazil, Mexico and the US were largely offset by upward revisions in the EU, Russian and Pakistan, it added.

"Developing countries are forecast to harvest 131 mt, 1.2 per cent more than in 2010-11, led by increases in India and Pakistan, while output in developed countries is anticipated to expand by 17 per cent to 42 mt, led by Russian Federation and the EU," FAO noted.

In case of Pakistan, the global body said that sugar output is expected to rise to 5.2 mt in 2011-12 marketing season from 4.4 mt in the year-ago period.

The sugar output in the EU is expected to increase to 17.9 mt in 2011-12 season from 15.7 mt is the year-ago period, while production in Russia is pegged to rise to 5.5 mt from 2.9 mt in the same period, it added.

FAO expects global sugar consumption to rise to 167.4 mt in the current season on the back of low prices and increased availability.

"Increased supply availability and lower prices are expected to support larger sugar intake than in the previous season. In 2009-10 and 2010-11, high domestic sugar prices curtailed demand in virtually all regions," it added.

World per capita sugar consumption will remain steady at 23.8 kg in 2011-12, FAO said.

Despite rising consumption of sugar, the global economic slowdown could hamper demand growth, the agency said.

"Aggregate sugar utilisation in developing countries is set to expand by 2.4 mt to 118 mt, or 70.4 per cent of global consumption. In the generally more mature markets of developed countries, consumption is to increase by 1.3 mt.

2. Indian scenario

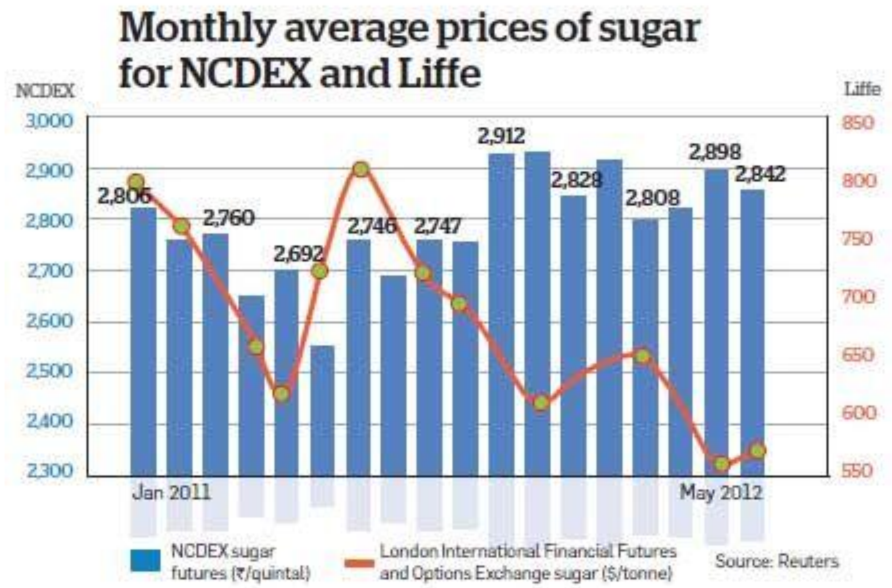
India is the second largest producer of sugar in the world and the domestic sugar industry is one of the largest agro-based industries, after cotton textiles. It is a highly regulated industry, wherein the entire value chain, from the price of sugarcane to the distribution of sugar and the use of its byproducts, is under the regulatory purview.

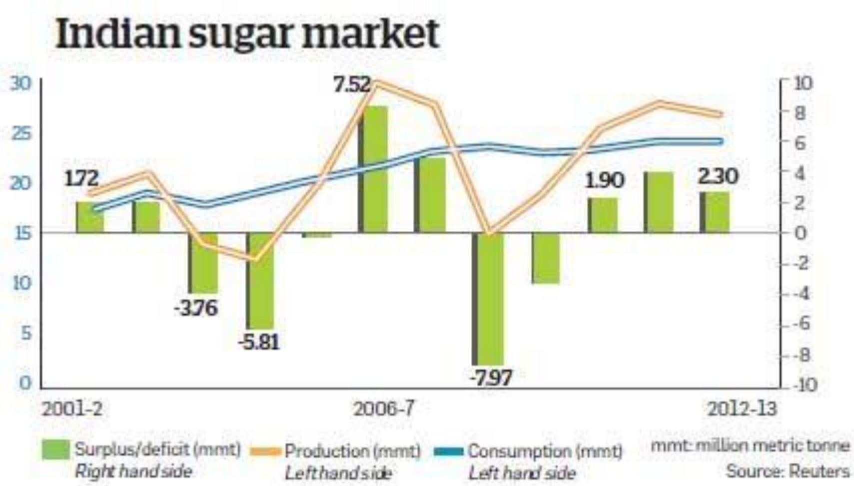
Besides being the chief raw material for the sugar industry, sugarcane is also used extensively in two cottage industries—gur and khandsari—which account for over 30% of sugarcane usage.

Sugar production is centred on a few countries, mainly Brazil, which accounts for over 22% of global production, followed by India (15%), EU (10%), and China (8%).

While global sugar production and consumption have increased considerably since the 1990s, the rise in production has been intermittent due to the cyclical nature of the sugar producing crops, which has a large bearing on global sugar prices. In 2011-12, the global sugar production was 172.12 million tonne and the consumption was 167.7 million tonne, a surplus for the second consecutive year.

The average annual ICE (IntercontinentalExchange) sugar prices were only 9.9 cent per pound in 2007 due to the global supply glut. However, a significant price increase was witnessed from 2007 to 2010 due to a lower output in 2008-10, coupled with a rising conversion of sugarcane to ethanol in Brazil.





In 2011-12, there was again a sugar surplus of about 5.5 million tonne on account of higher global output, except in Brazil, which saw a 20% drop in output. This has led to a drop in the monthly average Liffe (London International Financial Futures and Options Exchange) prices in the current year from $799 per tonne in July 2011 to $566 per tonne in May 2012.

Though India is among the largest producers of sugarcane, the yield and the sugar recovery rate is 46 tonne per hectare and 10.2%, respectively, which is much lower than the world average. Indian sugar production has grown at a CAGR of 2.4% over the past 12 years and was around 26 million tonne in 2011-12. However, it has been characterised by fluctuations of surplus and shortages due to the cyclical nature of production.

The domestic consumption has increased from 16.2 million tonne in 2000-1 to over 22 million tonne in 2011-12. Due to the consistent rise in demand and fluctuations in production, India's sugar status as a net importer/exporter changes frequently.

Currently, the domestic as well as global sugar markets have huge sugar inventories, which has led to a decline in prices. However, due to concerns over Brazilian sugar output, along with a higher demand in June and July ahead of Ramzan, the global sugar prices are expected to remain firm in the short term. However, sharp gains may be capped due to sufficient supplies.

According to FAO, sugar production in India, the world's second largest producer after Brazil, is pegged at 28.1 mt in the current season from 26 mt in the 2010-11 marketing season.

While Indian industry has pegged the sugar output at 26 mt in the 2011-12 marketing season, the Agriculture Ministry has forecast the production at 25.2 mt.

Sugar production in India, the world's second biggest producer and largest consumer, could decline by 5% to 24.5 million tonne in 2012-13, according to the International Sugar Organisation (ISO).

"Our understanding is that India's sugar production may fall marginally from 25.8 million tonne this year," ISO Senior Economist, Sergey Gudoshnikoy told reporters on the sidelines of the 41st session of the International Sugar Council (ISC) here.

The cyclic nature of production and building cane arrears could affect sugar production next year, he said, adding that production would be comfortable to meet the domestic demand.

The three-day session will conclude on April 26. Asked if India would turn net importer in view of a drop in production, Gudoshnikoy said the country would still have 1.5-2 million tonne of surplus sugar for export.

In the 2011-12 marketing year that started from October, ISO forecasted India's sugar output at 25.8 million tonne.

The forecast is however higher than the Indian government projection of 25.2 million tonne and slightly lower than domestic industry's estimate of 26 million tonne for 2011-12.

However, the domestic sugar cooperative industry body National Federation of Cooperative Sugar Factories (NFCSF) Managing Director Vinay Kumar said, "Based on current sowing, sugar production in 2012-13 would touch 25 million tonnes."

Whereas private sugar industry body Indian Sugar Mills Association (ISMA) Director General Abinash Verma said that the country will have surplus sugar next year. He, however, said it was too early to estimate the exact production figure.

According to official data, Indian farmers have planted sugarcane on 4.41 million hectares so far in 2012-13,as compared to 4.32 million hectares year-ago.
Higher area coverage has been reported from Uttar Pradesh, Maharashtra, Tamil Nadu and Karnataka.

3. Issues in Sugar Factories of India

Indian Sugar Industry is worth around Rs.75000 crores. It is the second largest agro-based industry with around 50 million people directly and indirectly involved in it. There are around 660 sugar factories installed in the country. The country has an estimated annual sugar production capacity of 30 million tons of sugar and accounts for around 5 million hectares of land under sugarcane cultivation. In terms of number of mills, India ranks first, followed by China 241, and Brazil 231 out of a World total of 2500.

3.1 Issues before Sugar Industry

The Indian sugar industry has been facing raw material, resource as well as infrastructural problems. Low capacity utilization and inadequacy of raw material led to closer of many sugar factories in India. Mounting losses and decreasing net worth of sugar factories have been responsible for sickness of the sugar industry which has reached alarming proportions. Key Issues before the Sugar Industry are as follows:

3.1.1.Cane Price

A High level Committee to be appointed by the Government for determining cane price which should be linked to sugar price through some transparent formula based methodology. The price so decided should also take into consideration inter-crop parity to avoid cyclicality in sugarcane production.

3.1.2.Release Mechanism

Sugar is sold by sugar factories on the basis of release orders issued monthly by the Sugar Directorate, Government of India. Release mechanism should be discontinued in order to have better cash management and timely payment to the farmers. Price discovery should be done through a transparent Forwards and Futures market.

3.1.3 Levy Sugar Obligation

The Government declares a certain proportion of sugar production as Levy sugar (at present 10% of total production) to be sold under Public Distribution System at pre-determined prices (which is way below the cost of production of the mills). This causes a huge financial burden on the mills. Levy sugar obligation should be totally abolished and if the Central Government wants to provide any sugar under the Public Distribution System it should buy such sugar from the open market and subsidies it from its own resources.

3.1.4.Import/Export Policy

The Government should have a Pro-active Import/Export Policy in order to ensure reasonable sugar prices so that sustainable cane prices can be paid to the farmers.

3.1.5.De-reservation of Cane Area

Reservation of cane area should be removed. This will help in efficient use of resources, better farmer-miller relationship and will provide a level playing field. Farmers will also have the option of supplying their cane to which ever miller he wants.

3.1.6.Packing Material

The Ministry of Textile has been prescribing the minimum percentages from time to time for compulsory packaging of sugar in jute bags. The packing cost of sugar in jute bags is very high compared to the other packaging material. The sugar industry is subsidizing jute industries. The Government should fully exempt the sugar industries from compulsory packaging in jute bags.

3.1.7. Priority Sector

Sugar industry has been cash striven for decades. Finance is not easily available from institutions to new sugar factories and to existing factories for expansion as well as for working capital requirements. Sugar sector being a very important sector in agronomy space should be classified as apriority Sector.

Besides major issues as above, sugar industry is facing other issues also as under:
•Under utilization of plants' installed capacity due to low availability of Sugar Cane
•Utilization of sugarcane by Gur /Khandsari industry without any control
•Low Recovery
•Prices of Ethanol
•Sale of Co-genpower in open market
Terms of Reference

To streamline all policy issues to the best advantage of Farmers, Industry and Consumers and ensure a buoyant growth for the sector

1. Improve sugarcane yield, productivity and recovery through proper Farm Extension activities andTechnologyTransfer.

2. To identify the issues facing sugar industry right from sugarcane pricing, sugar sale, levy sugar obligation, export-import etc which require policy change.

3. Formulate and propose policies in consultation with sugar industry and interface with Central and State Governments for effecting policy.

4. Facilitate effective voicing of industry's view in issues faced by the industry in all Government / Semi-Government / Consumer bodies and International forums.

5. Enhance share of Indian sugar in South Asian / Global markets.

6. To enhance the proper utilization of the by-products to make the sugar industry more self sustainable.

7. Facilitate training, advisory & consultative services to keep industry informed about global sugar industry trends.

4. Solutions to the problems of Sugar Industries in India

There are a number of reasons for the poor performance of cooperative mills and for the perception that they are more risky investments than private sector mills. Their institutional structure creates yet additional financial barriers to implementing the technology. First, cooperative mills have historically been smaller than private mills, commonly 2,500 TCD or less. Lower crushing capacity mills are less efficient than higher capacity ones, and it is costly to undertake mill expansion in order to install bagasse cogeneration. Second, as stockholders in the mill, farmers also own a share of the mill profits. These profits are paid to the farmers in the price paid for sugarcane. Therefore mills hold little capital that they can use for investments, and certainly not enough to cover the level of equity needed to invest in cogeneration. Collecting the equity needed would involve a political process whereby farmers would agree to pay for the cost of the equity portion of the investment, such as through receiving a lower price for their sugar cane. Third, because cooperative mills are democratically run, with typical election cycles of five years for board members, there is a high chance of policy change if a new management board is elected. The perception that cooperative mills are less creditworthy expresses itself in state guarantees and collateral requirements by banks (UNDP, 2005), that also, cooperatives are unable to meet. Fourth, some interviewees described the mills as lacking professionalism and not being well managed. The 'un-corporate' culture of cooperatives is something international agencies are not used to, which is one reason they have focused on the more profitable private mills. The cooperative sector's poor financial health, perception by banks and the central and state governments as not creditworthy, and their lack of equity holdings all make it difficult for cooperative mills to access the equity and debt needed to invest in cogeneration.

4.1 Cost reduction strategies for sugar Industry

Considering the vital role in accelerating not only the rural economy in particular but also the growth of the nation's economy in general, the sugar industry has to go for stringent cost cutting measures to stay afloat and to survive financial crisis which the industry is constrained to face often due to reasons beyond its control

4.1.1 Raw Materials

Sugarcane is the raw material for sugar industry and accounts for about 80% of the total cost of production of sugar. It is also the major source of income for millions of farmers. Government of India decides the Fair and Remunerative Price (FRP), the state governments, barring a few, fix a price called State Advisory Price (SAP). If the harvesting activities are properly carried out, the sugar mills can save considerable cost on cane price and reduce the cost of production.

The sugar mills should propagate among the farmers the need to go for high yielding and high sucrose content sugarcane varieties with the help of various national Sugarcane Research

Institutes, Universities etc., which can earn extra income from them and the mills also stand to gain by increased sugar production.

4.1.2 Processing Cost

The plant and machinery need to be so designed to extract maximum juice from the sugarcane which a adds to the sugar recovery. The old mills can be modernized o achieve higher productivity and to ensure proper return on investment. The efficiency of the boiling house in a sugar mill is of utmost importance to achieve the desired productivity.

As regards process chemicals, reputed suppliers are to be identified for supply of quality process chemicals by holding effective negotiations to ensure competitive price and timely supply to reduce the down time. Packing materials, like jute bags for domestic market and polypropylene bags for export market are an important component cost. Proper and scientific storage of sugar is another important aspect to overcome the problems of damage, quality deterioration and pilferage.

4.1.3 Manpower

The sugar mills have to properly and scientifically arrive at their requirement of manpower with requisite qualification and experience for an effective operation of the sugar complex considering the seasonal nature of the industry. Normally the sugarcane crushing operations last long to a maximum of 200 days only in a year and the remaining period is off-season when minimum employees can be kept and accordingly the manpower is to be rationalized. Attrition level of employees can be curtailed by extending productivity linked incentives

4.1.4 Financial Cost

The sugar mills can reduce their working capital limits and other key loans availed at higher rate of interest by going for agricultural loans to that extent. Sugar mills which are directly exporting sugar and molasses as per the Government of India norms can go for foreign currency term loans/working capital limits against their export considering natural edging.

4.1.5 By-Producats

Two major by-products of sugar, namely Molasses and Bagasse can be effectively extracted and utilized for down stream industry like power generation and alcohol/ethanol production. The transaction cost of these products between segments can be considered for credit adjustment.

4.2 Capacity Building and strengthening of cooperatives

Capacity building efforts at national and local level should begin with a practical-oriented evaluation and they should take into consideration key elements such as:-

- Work with methods and techniques with are specifically designed for co-operatives
- Support the development of capacities at local level
- Convince the members and others about the utility of co-operative enterprises
- Give emphasis to the development of human resources
- Adopt tools and methods to web environments, facilitating growth and modernization of co-operatives

Some of the recommendations which may be considered for various stakeholders including co-operatives and their members are as follows:-

- Co-operative should provide integrated services to the members as multipurpose business institutions and they should undertake business development planning for diversification of their business with a view to sustain themselves and the members' interest in their own co-operatives
- Co-operative should do the partnership with other private and government business ventures.

- Promotion of proper leadership should be encouraged through education and awareness programmes so that the members may take keen interest in the affairs of their societies and members should be exposed to the successful co-operative institutions in order to broaden their knowledge
- Managers and board members of co-operative societies should be inducted for training and refresher courses in order to improve their knowledge and enhance capacities to take proper decisions. Professionalization is the mantra to stay in the competitive market.

Conclusion

The govt. of India has put more sugar for sale through PDSs and open market during the July-Sept quartet than it did in the in the same period earlier. The total amount of sugar released for sale works out to about 5 million tonnes. The April-June period had also about the same amount of sugar for sale. Official sources say the sugar factories would sell at least 25 percent of their quota in each month of the quarter. They could sell the remaining 25 percent as per their commercial calculations. The whole exercise of the quarterly sale of sugar has been undertaken in response to overproduction of sugar in 2011-12. ,So as to keep retail prices stable.

The govt. has decided to export about 3 million tonnes of sugar this year as sugar production is being estimated to count 26 million tonnes against the domestic demand of 22 million tonnes. However, various sugar associations have been campaigning for deregulation of the sugar sector as well as for abolishment of monthly release mechanism and levy obligation.

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