Report of the Committee on the Regulation of Sugar Sector in India: The Way Forward

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Preface

The Government of India constituted this committee to comprehensively look into all the issues related to regulation of the sugar sector, and suggest ways and means to change those regulations in a manner that better promotes efficiency and investments, and sets this sector on a higher growth trajectory, increasing employment in rural areas and enhancing incomes of all those involved in this sector. Sugar industry is one of the few industries that have contributed to the development of the rural economy through utilization of a rural resource. Not only have the sugar demand of the country been met but the ever increasing energy demands are also being met by the surplus energy produced by the industry. However, the industry has not been able to achieve the growth trajectory that it could have on account of various regulations that span the value chain, ranging from sugarcane production to actual distribution of sugar in the domestic market and export of sugar. Against this background, the constitution of the committee (Annexure 1) with the following members having wide experience has greatly helped in formulating the issues and arriving at policy prescriptions to address the same:

(i) Shri T. Nandakumar, Member, NDMA – Member
(ii) Dr Kaushik Basu, then Chief Economic Adviser – Member
(iii) Dr Raghuram Rajan, Chief Economic Advisor – Member
(iv) Dr Ashok Gulati, Chairman, Commission for Agricultural Costs & Prices – Member
(v) Secretary, Department of Food & Public Distribution – Member
(vi) Secretary, Department of Agriculture & Cooperation – Member
(vii) Dr K. P. Krishnan, Secretary, EAC to PM – Convener

Dr Raghuram Rajan took charge of Chief Economic Advisor, succeeding Dr Kaushik Basu.

The committee also drew upon the expertise of Dr Saumitra Chaudhuri, Member, EAC and Planning Commission for inputs on certain issues linked to de-regulation of the sector.

During the course of its groundwork in firming up recommendations on various issues, the committee held wide-ranging stakeholder consultations with various associations/individuals at the national and state levels. The committee also met Chief Ministers of some of the important sugarcane and sugar-producing States, *viz.*, Karnataka, Maharashtra and Uttar Pradesh. Details of the committee's meetings, stakeholder consultations and meetings with the Chief Ministers are given in Annex-II. In addition, informal discussions were held with other stakeholders in the sector.

The committee has finalized its report by taking into account the views of the various State Governments, concerned stakeholders in the sector, and discussions held in its meetings.

I place on record my sincere thanks to the committee members for their extensive discussions on various issues and contribution by way of papers on various aspects. Working with them was indeed a pleasure.

I especially thank Chief Ministers of various States for sharing with us their views on various aspects concerning the sugar sector.

Last but not the least, I would like to place on record my appreciation for the officers of the EAC Secretariat who, under the guidance of Dr K. P. Krishnan, Secretary, EAC helped ensure that the committee operated in a smooth manner, and who provided valuable research and logistical support.

New Delhi

5th October 2012

(C. Rangarajan)

Chairman, Economic Advisory Council to the PM

Executive Summary

1. Sugar and sugarcane are notified as essential commodities under the Essential Commodities Act, 1955. India is the largest consumer of sugar and the second largest producer of sugar in the world. However, it does not have a reasonable degree of predictability in its production and trade policy with respect to sugar. The sector is characterised by controls across the entire value-chain of sugar production and sale, which not only hampers its efficiency but also exacerbates the cyclicality in sugar and sugarcane production. This characteristic of unpredictability in sugarcane production, coupled with the controls, does not allow the sugar sector to tap its full potential and thereby adversely impacts the interests of stakeholders across the value-chain—be they sugarcane growers, sugar mills, or consumers.

2. The highly perishable nature of sugarcane, the small land holdings of sugarcane farmers and the need to keep the price of sugar at a reasonably affordable level while also making it available through the Public Distribution System (PDS) have been the drivers for regulation. The principal aspects *regulated* in the sugar sector are as under:

(i) *Cane reservation area and bonding* — Every designated mill is obligated to purchase from cane farmers within the cane reservation area, and conversely, farmers are bound to sell to the mill. As a consequence of the area requirement (distance criterion), setting up of a new mill requires approvals, notwithstanding de-licensing under the Industries Development & Regulation Act.

(ii) *Minimum distance criterion* — The Central Government, under the Sugarcane Control Order, has prescribed a minimum distance of 15 km between any two sugar mills. Enhancement of this distance has also been allowed on the request of some state governments.

(iii) *Price of sugarcane* — While on the one hand, the Centre Government fixes FRP as the minimum price, which is also used for arriving at the price of levy sugar. On the other, many States have intervened in sugarcane pricing with State Advised Price (SAP) to strengthen the farmer interests. SAP has typically been higher than FRP. Farmers and millers on the one hand, and CACP and states on the other, have held divergent views on which is a price fair to both farmers and millers.

(iv) *Levy sugar obligation* — Every sugar mill mandatorily surrenders 10% of its production to the Central Government at a pre-determined price, which is, at present, Rs. 1,904.82 per quintal. This enables Central Government to get access to low cost sugar stocks for distribution through PDS. At present prices, the Government of India saves about Rs. 3,000 crore on account of this policy-- the burden being borne by the sugar sector.

(v) *Regulated release of free-sale (non-levy) sugar* — The release of non-levy sugar into the market is regulated by the Central Government through a controlled release mechanism. Earlier, monthly release orders were issued to each mill. Release orders have now become quarterly. The idea seems to be to match supply with anticipated demand based on the data available with the Directorate of Sugar.

(vi) *Trade policy for sugar* — Depending on mill-wise monthly production and stocks, local production levels and world market conditions, quantitative controls on both exports and imports are common in the sector. This is an avoidable source of uncertainty for the industry.

(vii) *Regulations relating to by-products* — There are several regulatory hurdles in respect of the by-products of sugar industry. In respect of molasses, these are at the state level, in terms of state government decisions relating to fixation of quotas for different end uses of molasses, restrictions on movement (particularly across state boundaries), etc. In respect of cogeneration from bagasse, there are regulatory and implementation issues relating to freedom to sell power to consumers other than the local power utility, and resort by state governments or their electricity boards to restriction on such open access sale by frequent or routine invocation of statutory provisions meant to deal with emergencies.

(viii) *Other Issues* — Jute Packaging Materials (Compulsory Use in Packing Commodities) Act, 1987 mandates that sugar be packed only in jute bags.

3. Cane area reservation and bonding are intended to serve the twin purposes of giving a minimum assured supply of the highly-perishable raw material to a mill, while committing the mill to procure at a minimum price (FRP/SAP). However, this arrangement may reduce the bargaining power of the farmer, who is forced to sell to a mill even if there are cane arrears and also reduces the farmer's remuneration if the design mill has a lower recovery rate. Mills also lose flexibility in augmenting cane supplies, especially when there is a shortfall in sugarcane production in the cane reservation area. Moreover, mills are tied down to the quality of cane that is supplied by the farmers in the area.

A priori, there is no reason why market-based long-term contractual arrangements which balance the interests of sellers and buyers will not work in this sector. Markets ordinarily are a superior option to state allocation of both raw material and manufacturing capacities. Therefore, over a period of time, states should encourage development of such market-based long-term contractual arrangements, and phase out cane reservation area and bonding. For those states that may want to continue in the interim, the current system may be allowed to continue. However, where a state does decide to continue with cane area reservation, it must be ensured that the period of reservation is not less than three to five years.

4. The minimum distance criterion for setting up of a new mill is expected to ensure a minimum availability of cane for all mills. This can cause distortion in the market. The virtual monopoly over a large area can give the mills power over farmers, especially where landholdings are smaller.

This restriction inhibits entry and further investment, and adversely impacts competition for purchase of sugarcane as well as for improving mill efficiency. As such, it is not in the interest of development of sugarcane farmers or the sugar sector, and may be dispensed with as and when a state does away with cane reservation area and bonding.

5. There is general agreement that there is a need to rationalize the pricing of sugarcane. It is also generally agreed that there should be a sharing of the revenues/value created in the sugarcane value chain between the farmers and the millers in a fair and equitable manner. The question that needs to be answered is the exact level and manner of arriving at the cane dues.

It would be fair to share the revenue pot of value created in the sugarcane value chain between the farmers and millers in the ratio of their relative costs. An analysis of the costs incurred by sugarcane farmers and those incurred by sugar mills suggests that this ratio between farmers and millers, taking a recovery rate of 10.31 per cent, works out as 69:31 which, rounded off, can be taken as 70:30.

This value-sharing ratio should apply not only for the revenue generated from sugar but also to that generated from saleable primary by-products produced in the process of sugar production. Therefore, it is suggested that 70% of the value of sugar and each of its three major by-products, namely bagasse, molasses and press mud (all *ex*-mill), be fixed as the cane dues payable to the farmer for the sugarcane supplied. (Based on an analysis of the data available for the by-products, and if by-products are loaded on the value of sugar, the value-sharing ratio for farmers is estimated to amount to roughly 75 per cent of the *ex*-mill value of sugar alone). However, farmers will in all circumstances be paid the Fair and Remunerative Price (FRP) as the minimum, and this will be paid up-front.

States may publish half-yearly *ex*-mill prices of sugar and the by-products for this purpose. While scrutinizing the *ex*-mill sugar pricing data, the open market price of sugar as competitively bid in sugar procurement for PDS (which has been recommended separately, in lieu of the present levy sugar arrangement), net of taxes, may be kept in view.

The actual payment for the cane dues would happen in two steps. The first would be payment of a floor price, based on FRP as per extant mechanism. Balance payment of cane dues will be done subsequent to publication of half-yearly *ex*-mill prices, on the lines indicated.

With such a system in operation, states should not declare an SAP.

6. Levy amounts to a cross-subsidy between open market and PDS sugar and is not in the interest of the general consumer or the development of the sugar sector. Therefore, levy sugar may be dispensed with.

Dispensing with levy sugar translates into doing away with a centralised arrangement for PDS sugar. The states which want to provide sugar under PDS may henceforth procure it from the market directly through a competitive bidding process according to their requirement and may also fix the issue price. An additional subsidy on account of the implicit cross-subsidy in the levy arrangement may be provided by the Central Government over and above the current subsidy being given for the difference between the levy price and the issue price and PDS transportation costs. This should be done along with rationalization of the current issue price for PDS sugar which has been kept constant for the past so many years.

The recommendation for an export/import duty, made separately in connection with the trade policy for sugar would help compensate the Centre in part for the cost incurred for the additional subsidy to be provided to states. The Centre would also benefit from the improved tax receipts received from the sugar industry as a result of an improved regulatory environment, and could also consider redeploying the sugar cess proceeds.

7. Markets in almost all sectors in India are constantly matching anticipated demands with supply. There is no particular reason why sugar market would not be able to do this. This mechanism of regulated release of non-levy sugar imposes costs directly on mills (and hence indirectly on farmers) on account of inventory accumulation, inability to plan cash flows, etc. Further, seasonal fluctuations in price are continuing. Hence, since this mechanism is not serving any useful purpose, it may be dispensed with.

8. Decisions regarding the export and import of sugar are taken after taking into account the domestic availability, demand and prices. A number of cascading import controls and export “permits” are used to achieve this. Thus, India’s trade in the world trade sugar is “thin” and volatile. Even though India contributes 17% to the global sugar production, its share in the exports is only 4%.

The extent to which the policy interventions have been fully successful at stabilizing consumer prices is debatable. But it seems that this has been at the cost of considerable instability for the sugar cane and sugar production.

The committee is of the opinion that trade policies on sugar should be stable. Appropriate tariff in the form of a moderate duty on imports and exports, not exceeding 5-10 per cent ordinarily, as opposed to outright ban or quantitative restrictions, should be used to meet

domestic requirements of sugar in an economically efficient manner. However the option of imposing a higher level of duty could be retained for dealing with exceptional circumstances.

9. Current regulatory arrangements relating to by-products impede development of a national market and consequently reduce economic efficiency. There should be no quantitative or movement restrictions on by-products like molasses and ethanol. Prices of by-products should be market-determined with no earmarked end-use allocations. Likewise, there should be no regulatory hurdles preventing sugar mills from selling their surplus power to any consumer.

10. Suitable changes may be made in the relevant control orders to give effect to the recommendations outlined above.

11. Jute Packaging Materials (Compulsory Use in Packing Commodities) Act, 1987 (JPMA) mandates that sugar be packed only in jute bags. It is estimated by the sugar industry that this leads to an increase in cost by about of 40 paise per kg of sugar besides adversely impacting quality on account of ingress of jute fibres of jute bags. Further there is often a shortage of jute bags.

Sugar industry (like cement and fertilizer industries earlier) should be removed from the purview of JPMA. If the use of jute is uneconomical, such a mandatory use regime is unlikely to render the jute industry profitable. All it ends up doing is impose a loss of efficiency in consequence of this distortion of choice.

12. Key regulations delineated above have been discussed in succeeding chapters. Chapter 1 introduces extant regulations and cyclicality in the production of sugar cane and sugar in India. The various aspects of control are discussed in brief. Chapter 2 is focussed on the cane reservation area and the minimum distance criterion, their implications, and the options that can be considered for bringing in greater efficiency and incentivizing increase of productivity. Chapter 3 deals in depth with the important issue of sugarcane pricing and the way forward by way of revenue/value-sharing as the basis for fixation of cane dues. Chapter 4 looks at the dual pricing of levy and non-levy sugar, and the regulated release mechanism for non-levy sugar. It explores in detail the constraints this imposes on mills with regard to pricing and release of sugar in the market. An alternative to levy sugar and doing away with the regulated release mechanism are discussed in detail. Chapter 5 of the report is focussed on the trade policy with regard to sugar and the ways and means by which India can balance achievement of the twin objectives of playing a significant role in the global sugar trade and ensuring stable prices and supply in the domestic market. Chapter 6 discusses other important aspects that relate to mandatory jute packaging, by-products and Sugar Development Fund (SDF). Chapter 7 concludes the report.

13. Establishing the basis for an efficient sugar industry would require a multi-pronged approach as suggested in the report. **Rationalization of sugarcane pricing and liberalization of sugar trade need to be introduced over a two to three year period, in a calibrated and phased manner. However, levy sugar obligation and administrative control on non-levy sugar need to be dispensed with immediately.** The regulations regarding cane area reservation and bonding may be dispensed with by states over the long run, and as states discontinue reservation area, the Centre should dispense with the minimum distance criterion. Implementation of the recommendations would enable India to continue to meet its domestic demand while also ensure growth of a competitive and efficient market.

Chapter 1

Introduction

Context

1.1 Sugar industry is an important agro-based industry that impacts rural livelihoods of about 50 million sugarcane farmers and around 5 lakh workers directly employed in sugar mills. Employment is also generated in various ancillary activities relating to transport, trade, servicing of machinery and supply of agricultural inputs. India is the second largest producer of sugar in the world after Brazil and is also the largest consumer. Global sugar production for marketing season 2012/13 is forecast at 174 million metric tonnes (MMT) raw value, up by 2 per cent from last year.

Chart 1.1: Contribution of India in Total Sugar Production

Source: United States Department of Agriculture, Foreign Agricultural Service, May 2012

1.2 Agriculture being largely rain-fed, monsoons play an important role in the production of sugarcane in the country. Sugarcane is a water intensive-crop. Farmers in sub-tropical areas irrigate the crop 4-5 times whereas their counterparts in tropical areas because of geographical conditions irrigate it at least 20 times, even though water is already a scarce commodity. Uttar Pradesh, Maharashtra, Tamil Nadu, Karnataka, Andhra Pradesh, Gujarat, Punjab and Haryana are the leading producers of the sugarcane in the country (Table 1.1).

Table 1.1 State-wise Sugarcane Production (in thousand tonnes)

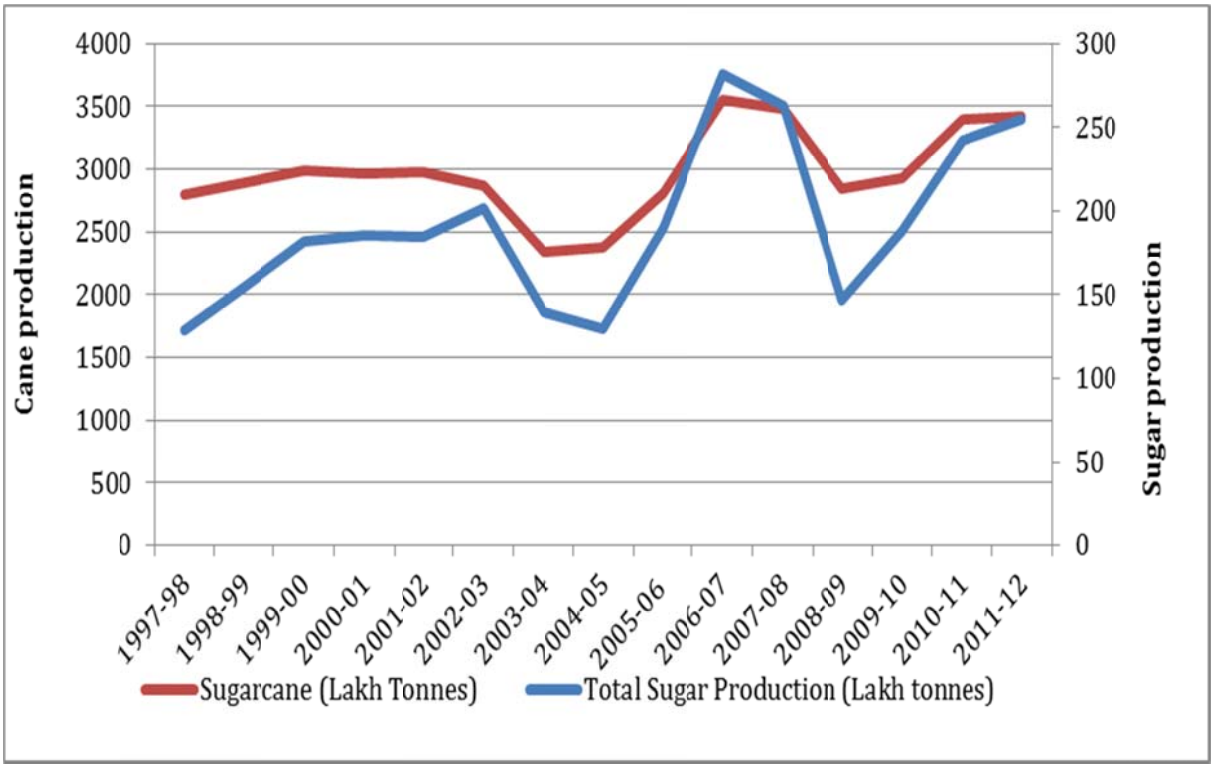
Year	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11 (E)
SUB-TROPICAL REGION	152740	140591	142499	148982	161605	151756	129398	137050	152228
Uttar Pradesh	120948	112754	118716	125469.9	133949.4	124665.3	109048	117140	120555
Uttarakhand	7332	7651	6441	6134	6100	7686	5590	5842	6516
Bihar	4520.5	4286	4112	4338	5956	3854.9	4960	5032.6	15000
Punjab	9290	6620	5170	4860	6020	6690	4670	3700	4170
Haryana	10650	9280	8060	8180	9580	8860	5130	5335	5987
TROPICAL REGION	128726	87078	88456	124462.5	185683.7	188234	147670.4	148455.6	179749
Maharashtra	42617	25668	20475	38853	78568	88437	60648	64159	78838
Gujarat	14071.3	12669.1	14570	14580	15630	15190	15510	12400	14240
Andhra Pradesh	15387.2	15070	15739	17656	21692	20296	15380	11708	14784
Karnataka	32485.3	16015	14276	18267	28670	26240	23328	30443	37595
Tamil Nadu	24165.4	17656	23396	35107	41124	38071	32804	29745.6	34292
All-India	**287383.2**	**233862**	**237088**	**281172**	**355520**	**348187.9**	**285029**	**292301.6**	**339167.56**

Source: Directorate of Economics and Statistics, Ministry of Agriculture, Government of India

Cyclicality of Sugarcane and Sugar Production

1.3 Area under sugarcane has risen from 39.29 lakh hectares in 1997-98 to 49.44 lakh hectares in 2010-11. Over the same period, sugarcane production has increased from 279.59 million tonnes to 339.17 million tonnes. After a steady rise in sugarcane production in the years subsequent to 1997-98, it fell to 233.86 million tonnes in 2003-04. Increase in sugarcane production thereafter was again followed by a decline in 2008-09 to 285.09 million tonnes. Production of sugar is closely linked to sugarcane production. The cyclical nature of the sugarcane – and hence of sugar – production is quite evident (Chart 1.2).

Chart 1.2: Cyclicality in Sugarcane and Sugar Production



Source: Directorate of Economics and Statistics, Ministry of Agriculture and Department of Food and Public Distribution, Government of India

1.4 During the years of high production of sugar, prices of sugar in the market are low. As a result sugar mill owners delay payment to farmers for the sugarcane supplied and this leads to accumulation of "cane arrears". Thus, arrears payable are inevitably higher in the years of higher production. State-wise details of cane arrears as on 31st May 2012 are indicated in Table 1.2. Accumulation of cane arrears prompts sugarcane farmers to shift to cultivation of alternate crops, thereby reducing the area under sugarcane cultivation. In addition, sugarcane farmers may supply to the alternate industry of *gur* and *khandsari* where payments are made immediately and in cash. Diversion of sugarcane to *gur* and *khandsari* decreases during the years of abundant availability of sugarcane and increases during the years of shortfall in production.

Table 1.2: Cane price paid, payable and cane price arrears for 2011-12 sugar season and earlier periods as on 31.5.2012

(Amount in crore Rs)

S.No.	State	Cane Price Payable	Cane Price Paid	Cane Price Arrears	Cane Price Arrears	Cane Price Arrears	Total Cane Price Arrears
		2011-12	2011-12	2011-12	2010-11	2009-10 & earlier periods	
1	Punjab	967.32	870.58	96.74	0.00	0.00	96.74
2	Haryana	1221.06	1074.35	146.71	0.00	0.00	146.71
3	Rajasthan	5.99	3.92	2.07	0.00	0.00	2.07
4	Uttar Pradesh	18066.03	14904.50	3161.53	7.30	134.98	3303.81
5	Uttarakhand	905.46	669.34	236.12	17.97	6.30	260.39
6	Madhya Pradesh	132.77	132.77	0.00	2.05	11.34	13.39
7	Chhattisgarh	0.00	0.00	0.00	0.00	0.00	0.00
8	Gujarat	1586.41	1550.15	36.26	0.00	13.41	49.67
9	Maharashtra	13251.39	13080.82	170.57	32.54	17.37	220.48
10	Bihar	1054.80	956.78	98.02	1.67	31.94	131.63
11	Assam	0.00	0.00	0.00	0.00	0.00	0.00
12	Andhra Pr.	2366.50	2085.02	281.48	0.00	33.09	314.57
13	Karnataka	6257.50	5857.05	400.45	38.77	20.29	459.51
14	Tamil Nadu	3790.82	3342.77	448.05	0.00	2.15	450.20
15	Kerala	0.00	0.00	0.00	0.00	0.00	0.00
16	Orissa	56.56	54.54	2.02	0.00	0.00	2.02
17	West Bengal	10.59	10.57	0.02	0.00	0.00	0.02
18	Nagaland	0.00	0.00	0.00	0.00	0.00	0.00
19	Puducherry	71.14	29.75	41.39	0.00	0.00	41.39
20	Goa	16.17	13.73	2.44	0.00	0.00	2.44
	Total	**49760.51**	**44636.64**	**5123.87**	**100.30**	**270.87**	**5495.04**

Source: Department of Food & Public Distribution, Government of India

1.5 The cyclicality of sugarcane production causes large swings in the area under cultivation of sugarcane and hence its availability to the sugar industry. Sugarcane production falls during the years of reduced acreage leading to less availability of the raw material for the sugar industry and hence the sugar prices go up. This sets in motion the next phase of the cycle in which sugar production falls leading to high prices. Due to higher revenues, mills are then able to liquidate part of the cane arrears. This signal to the farmer makes them shift back to cane cultivation. Over a period of time there is overproduction and the prices fall again. Thus, the infamous 'Indian Sugar Cycle' is set in motion again (Figure 1.1).

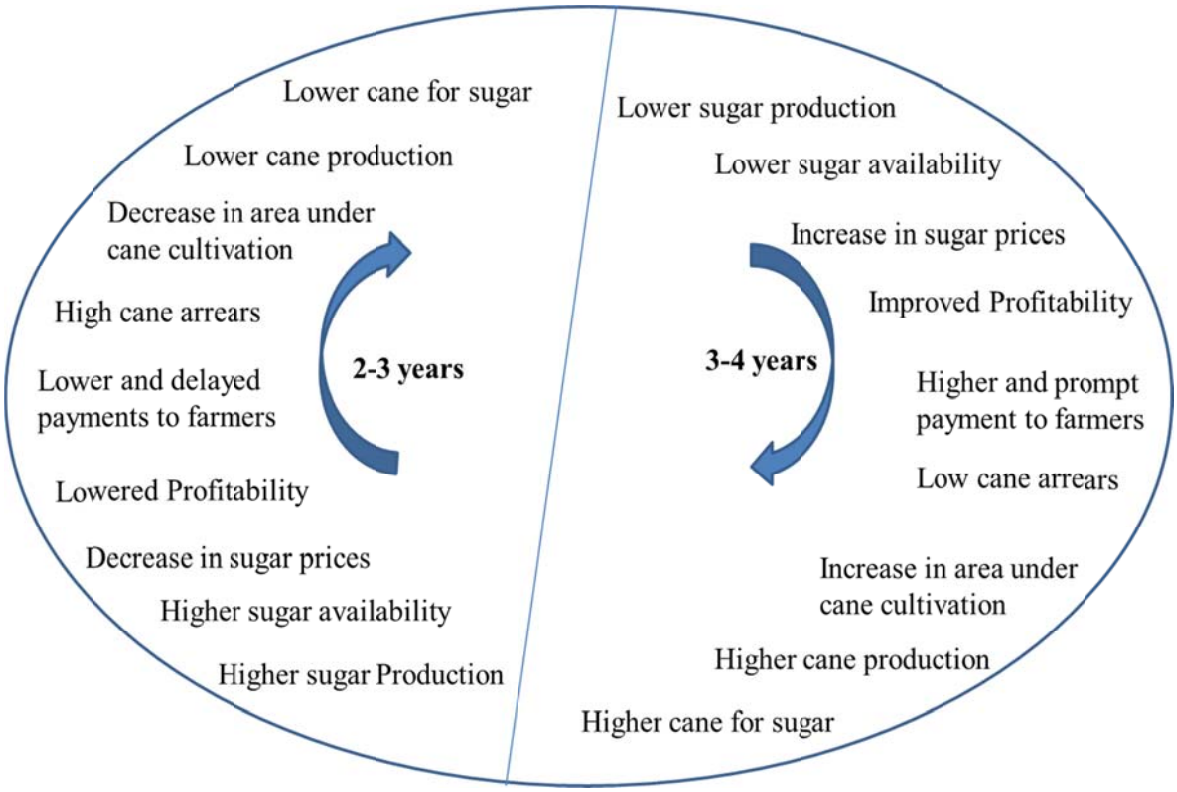


Figure 1.1: Indian Sugar Cycle

Interestingly, global sugar production does not exhibit the fluctuations that characterise the Indian sugar business.

1.6 Today, Indian sugar industry's annual output is worth approximately Rs 80,000 crore although it has the potential to grow at double digits and double its worth to Rs 1,60,000 crore over the next five to ten years. The key to unlock this untapped potential lies in taking the sugar sector from delicensing to its logical conclusion of total decontrol so that it can leverage the expanding opportunities created by the consistently rising demand for sugar and the emergence of sugarcane as a source of renewable energy, through ethanol and cogeneration. But for this to happen, sugar sector needs to be freed from myriad restrictions ranging from levy obligation, a regulated release system for non-levy sugar, SAP etc. Pricing of cane, being critical, has to be based on a scientifically sound and transparent principle. A vibrant and thriving sugar industry will be a catalyst for change in rural India bringing in prosperity and contributing to energy security a 'win-win' situation for all stakeholders. For a large scale and sustainable development of sugarcane and sugar industry, it is necessary that it is developed in areas which have ample water

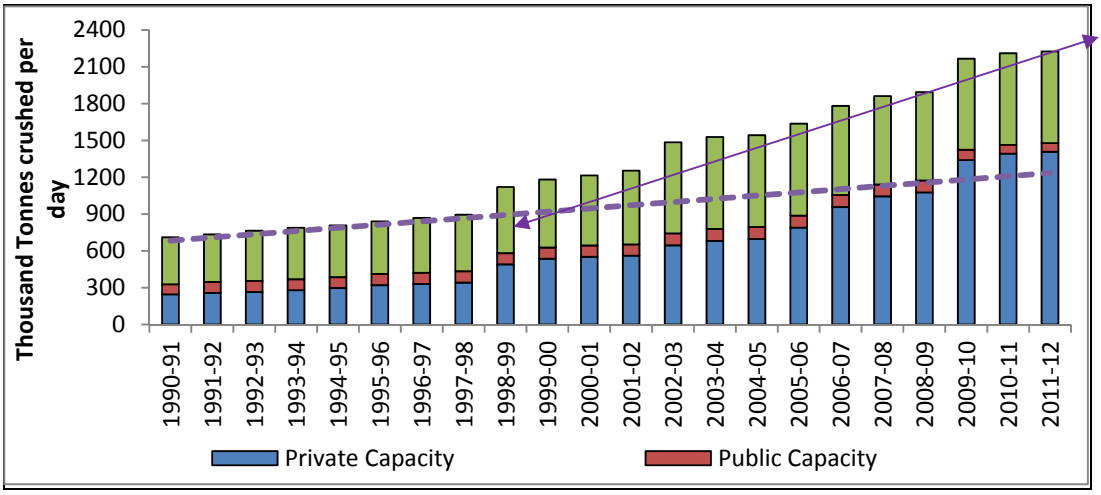
supplies. Sugarcane being a water-intensive crop, one has to see the availability and cost of that water to remain globally competitive. In this regard, some states and regions blessed with natural endowment of water, such as eastern UP and Bihar to cite just two examples, can harness this untapped potential of sugar industry for the long haul, and bring about prosperity and power (energy) to their rural population.

Progressive Deregulation

Delicensing

1.7 A major step to liberate the sugar sector from controls was taken in 1998 when licensing requirement for new sugar mills was abolished. Till 1997-98, growth in sugar industry was at a much lower level, and took-off on a high growth trajectory in the post de-licensing period. During the pre-delicensing period (1990-91 to 1997-98), the sugar industry, in terms of installed capacity, grew at an annual average growth of 3.3 per cent, which more than doubled to 6.9 per cent thereafter (1998-99 to 2011-12). And this came increasingly from the private sector. The installed capacity in the private sector grew at an annual average rate of 11.2 per cent in the post-delicensing period as compared to only 4.8 per cent earlier. In comparison, cooperative sector's capacity grew by only 2.7 per cent in the pre-delicensing period and 3.7 per cent in the post-delicensing period. Public sector's capacity growth has been negative, at (-) 1.7 per cent, even in the post-delicensing period.

Chart 1.3: Sector-wise Installed Capacity in Sugar Industry



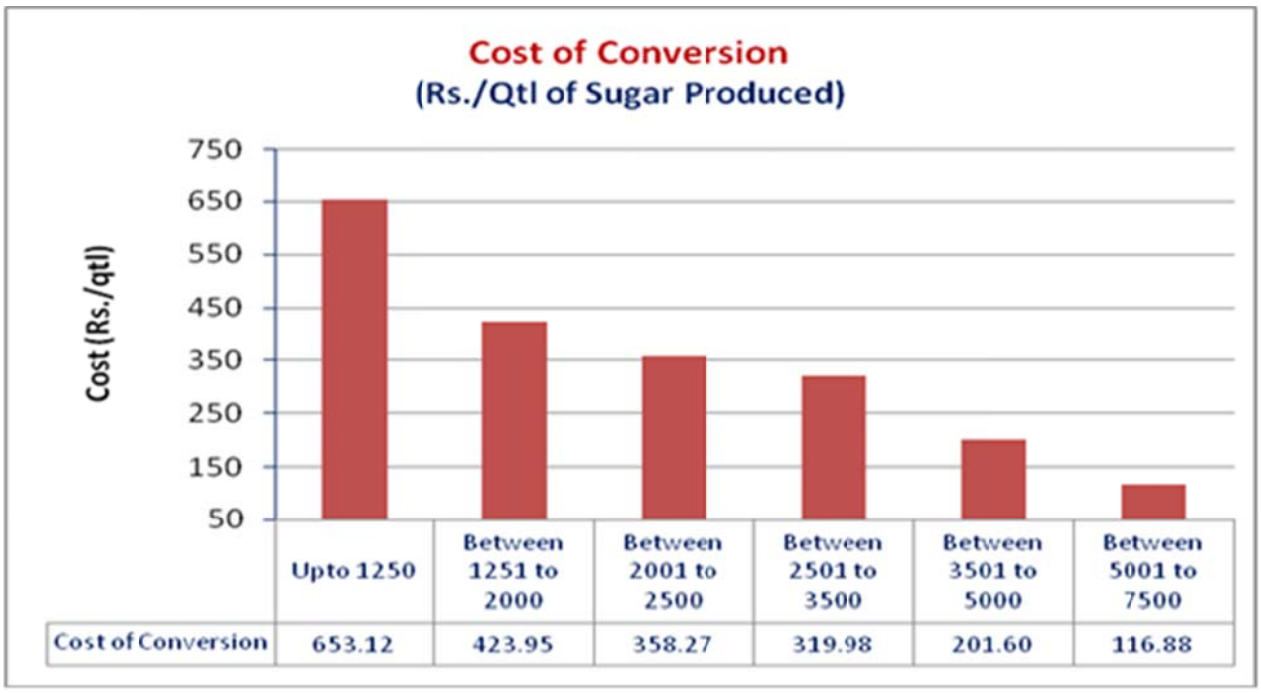
Source: Directorate of Sugar, Department of Food & Public Distrinution

1.8 Delicensing also contributed significantly to a structural transformation in sugar industry, from being dominated by sugar co-operatives to private sector sugar mills (Chart 1.3). Till 1997-98, sugar cooperatives dominated the sugar industry with an installed

capacity of 51.5 per cent of total installed capacity in the country, followed by the private sector (38.2%) and public sector (10.3%). By 2011-12, this had changed significantly with the private sector contributing the largest share of 63.3 per cent of total installed capacity, followed by cooperatives (33.6%), with the public sector (3.2%) trailing well behind.

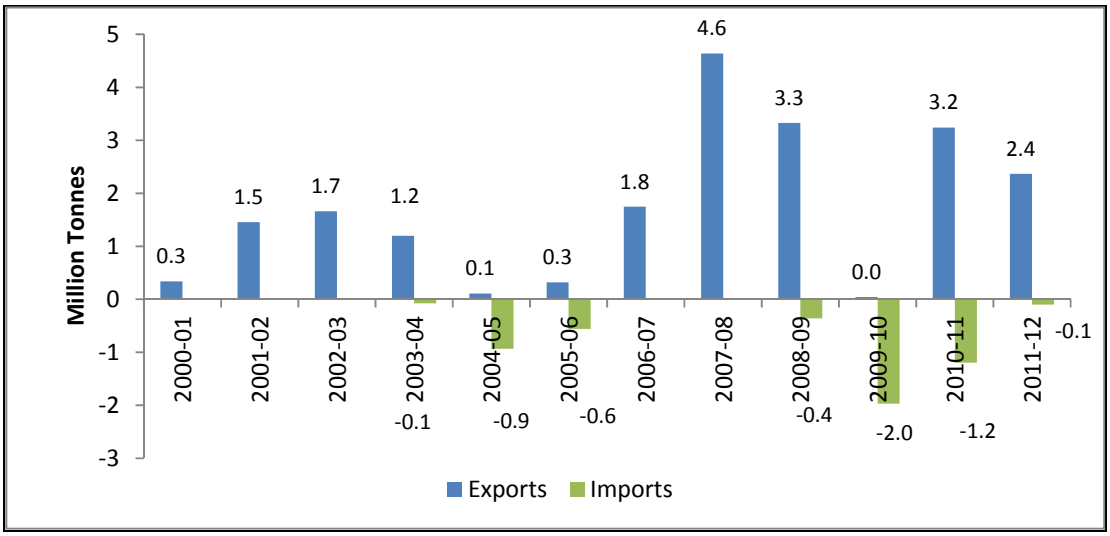
1.9 There is also evidence that private sector mills, existing ones as well as new ones that are coming on stream, are of much higher capacity than the cooperatives or public sector mills. Normally, larger mills enjoy scale economies and greater efficiency in sugar production. Based on an analysis of 84 sugar mills in Maharashtra, it is found that there exist strong economies of scale in the sugar industry, i.e., with increasing scale of operations, the cost of conversion of sugarcane into sugar decreases substantially (Chart-1.4). This obviously increases the global competitiveness of the Indian sugar industry, and as a result, India has emerged as a net exporter of sugar over the last decade (Chart 1.5).

Chart- 1.4: Economies of Scale in Sugar Industry in Maharashtra
(Relation between Capacity and Cost of Conversion of Cane into Sugar)



Source: Commission on Agricultural Costs & Prices

Chart 1.5: Volume of Exports and Imports of Sugar by India



Source: Directorate General of Commercial Intelligent & Statistics, Kolkata

Notes: 1. Exports and Imports refer to financial year

2. Figures for 2011-12 are for the period up to February, 2012

1.10 The above analysis clearly indicates that the policy decision to liberate the sugar industry from licensing requirements had a large, beneficial impact on the growth and efficiency of this sector. This should encourage the government to go full-length in liberalizing this sector from other controls, especially with regard to levy, regulated releases of non-levy sugar in the open market, cane area reservation, distance between mills, export and import policy, etc.

Regulations/Controls in the Sector

1.11 Although sugar industry has been delicensed, it continues to be subject to various controls through various regulations. Spanning across the sugar value chain, these regulations cover activities ranging from reservation of area for sugarcane production, a minimum distance criterion for setting up of new mills and fixing up the price of sugarcane in the form of a Fair and Remunerative (FRP) / State Advised Price (SAP). Some important regulations in the sector are described below in brief.

(a) **Cane Reservation Area and the Minimum Distance Criterion** – The former enables legal enforcement of supply and purchase of cane within a mill's allocated catchment area, while the latter restricts the setting up of new mills within 15/25 km of existing mills. State governments have the power to reserve any area where sugarcane is grown for a specific mill having regard to the crushing capacity of

sugar mill, availability of sugarcane in the reserved area and the need for production of sugar. The obligation under reserved area is mutual, that is, the farmers are required to supply all their cane produce to the mill and the mill has to procure all the cane produced in the reserved area, even if incurring losses. Currently, 25 km is prescribed in Punjab, Haryana and Maharashtra whereas other states have a distance criterion of 15 km.

(b) **Methodology for Determination of Cane Price** – FRP and SAP are the respective minimum price set by Central and some State Governments for sugarcane, which must be mandatorily paid by sugar mills to farmers.

(c) **Levy Sugar and the Release Mechanism for Non-Levy Sugar** – Mills have to deliver a certain percentage[1] of production to the government for distribution through the Public Distribution system (PDS), at a price which is lower than the market price.

Free sale of the remaining quantity of sugar (net of levy sugar) release orders are issued by the Central Government. Both free sale sugar and levy sugar are subject to such periodical release quotas. Sugar produced over the four-to-six-month sugar season is, thus, sold throughout the year by distributing the release of stock evenly across the year. This release mechanism has been in place since 1942, when the Sugar and Sugar Products Control Order was first promulgated. The rationale for periodic release of sugar is to help ensure sugar availability throughout the year at a reasonable stable price to consumers. Till recently release orders were being issued on a monthly basis and are now being issued on a quarterly basis.

(d) **Trade Policy for Sugar** – India uses export and import controls to smoothen the domestic cycles of availability of sugar, and thereby attempts to achieve greater stability in domestic prices for consumers. Policy instruments ranges from export bans, financial help to firms for export of sugar, import duties etc. These measures vary with the demand and supply situation in the domestic market. Thus, international trade is regulated through import tariffs and through non-tariff restrictions on exports including temporary bans.

[1] At present, levy sugar is 10 per cent, and has been so for the past few years, except in 2009-10 when it was raised to 20 per cent.

(e) **Other Issues**:

(i) Regulations Relating to By-Products – Molasses, bagasse and press-mud are the primary by-products of sugarcane. Molasses are utilised in the production of alcohol in the country. There is no control by the Union Government on production, pricing and distribution of molasses. There is no price control on the molasses in any State too. However, surplus production (after use in boilers in the sugar mill) and movement of molasses is controlled by the State Excise authorities. Bagasse was traditionally used in the paper industry, but is now largely being used as fuel feedstock for cogeneration of electricity. The regulatory regime for cogeneration is part and parcel of the regulatory regime for renewable energy. The issues relating to cogeneration pertain to implementation of Electricity Act provisions and regulations framed there under for all forms of renewable energy. These fall within the domain of States and State Electricity Regulatory Commissions.

(ii) Packaging of Sugar – Under the Jute Packaging Materials Act, 1987, it is compulsory that sugar be packaged in jute bags.

Policy Intervention

1.12 The focus of policy intervention in the sugar sector has to be the elimination of cyclicality in production, reduction in price volatility and providing a stimulus for growth production. Various regulations in the sector need to be examined in greater detail and the endeavour should be to remove those which have outlived their utility and are now responsible for amplifying the cyclicality and price volatility in sugarcane and sugar production. However, any deregulation must provide for the protection of the farmer's interest and also protect consumer interest, especially that of vulnerable households. With this as the background, subsequent chapters dwell at greater detail on regulations, with views summarized at the end of each chapter.

Chapter 2

Cane Area Reservation and the Minimum Distance Criterion

Context

2.1 Central Government has been protecting the interests of sugarcane farmers and sugar mills through various policy instruments. Sugarcane farmers are assured of a minimum price for sugarcane, payable by mills. On the other hand, sugar mills have been assured regular supply of sugarcane by providing that a minimum distance be maintained between two mills and an area be earmarked for each mill for drawal of cane. The expectations implicit in the extant system of cane area reservation and the criterion for distance between mills could be as under:

(i) ensuring adequate cane supply to mills and preventing unhealthy competition to procure sugarcane;

(ii) ensuring crushing of the entire quantity of cane grown by sugarcane farmers in the reserved area, with no cane remaining uncrushed at the end of the season; and

(iii) increasing the productivity of sugarcane cultivation so as to increase the income of farmers and enhance supplies and sugar recovery for mills.

2.2 Central Government has delegated power of reserving the cane area reservations to State Governments *vide* notification dated 16th July 1966. Some State Governments, like UP and Bihar also have their own enactments under which they issue mill-wise cane area reservation orders, read with the delegated powers of the Central Government.

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

2.4 In view of certain judicial pronouncements, the Sugarcane (Control) Order, 1966 was amended vide notification dated 10th November 2006 to give statutory backing to the norm of keeping a minimum distance of 15 km between two mills .State Governments were

authorized to notify a minimum distance higher than 15 km in their territory, in case they considered it necessary and expedient in public interest to do so subject to prior approval from the Central Government. On the request of the Governments of Punjab, Haryana and Maharashtra, Central Government has approved increasing the minimum distance from 15 km to 25 km in these states.

Issues:

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

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

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

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

The Way Forward

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

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

2.11 The present norm of keeping a minimum radial distance between two sugar mills at 15 km needs to be reviewed. Many in the sugar industry have argued for increasing it to 25 km on the ground that mills have expanded capacities and a catchment area of 15 km is too small to cater to the daily cane-crushing requirement. Also, many mills have set up cogeneration facilities and they require large quantities of bagasse to keep generating power throughout the season. Both these pleadings of industry are not supported. The higher requirement of cane on account of enhanced capacity of the mill should be met by way of increase in productivity of cane and not by an expansion of the area. As indicated earlier, productivity has not improved despite mills enjoying the benefits of cane area reservation and the minimum distance norm.

2.12 While the minimum distance norm has checked competition to procure cane it has at the same time come in the way of entrepreneurial initiative. It does not allow an

entrepreneur to set up a mill at her/his preferred location. It should be left to the judgment of the entrepreneur where s/he should set up the sugar mill. Entrepreneurs investing their capital will do so only after detailed viability studies and appraisal by banks and financial institutions. In particular, they will certainly assess the present and future availability of cane. No entrepreneur will risk her/his capital to establish a mill in an area where an established mill is doing well and enjoying the confidence of and excellent relations with the farmers or where the supply of cane is doubtful.

2.13 In respect of other perishable commodities like horticultural crops etc. too there is no practice of reserving an area for a mill. As such, the present distance restrictions can safely be dispensed with as and when a state does away with cane reservation area and bonding. Doing so will keep the existing mill on its toes to pay the cane price in time and extend other facilities so as to keep farmers satisfied, lest some other entrepreneur come and set up another mill in the vicinity.

Chapter 3

Methodology for Determination of Cane Dues

Context

3.1 Although the capacity for and production of sugar and sugarcane have increased over time, cyclicality has remained. One of the reasons appears to be the way pricing of cane is done. Currently, although an FRP is announced based on the recommendations of CACP, many State Governments announce their own SAP/negotiated price. The problem with this approach adopted at the state level is that such a price is not linked directly to the sugar price, and lacks transparency. As a result, with sugar prices varying, this sometimes leads to an abnormally high share of the sugar value as cane payments made to farmers, which mills are not able to viably finance leading to accumulation of cane arrears. In the years following such peak payment years, there is a drastic fall in farmers' share in sugar prices, going even below 50 per cent at times, which corrects the system in a very disruptive manner, making it slide from the peak like a roller-coaster and bringing it to a trough, to be again taken up on an upswing, thus leading to cycles in production, bringing greater uncertainty and risk.

The Way Forward

3.2 Therefore, there is a dire need to adopt a scientifically sound and economically fair principle to arrive at a fair determination of cane dues as a share of the total value in the sugar production chain, in line with the international practice. Further, given the limited capacity of farmers to absorb the risk of high volatility in sugar (and therefore sugarcane) price, this may be supplemented with a minimum price fixed for sugarcane (FRP). This will bring about greater certainty, much needed stability and rationality into the system and help attract greater investment, putting the sugar sector on a higher growth trajectory.

3.3 With regard to value sharing, the key question that needs to be answered is which are the products whose value needs to be shared, and in what proportion. The value created comprises basically sugar and its principle primary products namely molasses, bagasse and press mud which are obtained in the first stage of processing. The fundamental principle underlying sharing of the value created from sugar and its by-products is that such value should be apportioned in the relative share of costs incurred by farmers and millers.

3.4 Detailed calculation done by CACP in its report[2] show that, on an average, cane farmers would get a better deal in terms of pricing of cane in comparison to the current system and would also be more transparent and stable, benefiting both farmers and mills. An analysis of the costs incurred by sugarcane farmers and those incurred by sugar mills suggests that this value-sharing ratio between farmers and millers works out as 69:31 which, rounded off, can be taken as 70:30. The estimation made by CACP is presented in Table 3.1.

Table 3.1: Farmers' Share in Sugar Value

SN	Parameter	All India value
1	Recovery rate (%)	10.31
2	Ex-mill price of sugar (Rs./qtl.)	2825
3	Gross conversion cost (Rs./qtl. of cane)	43.50
4	Harvesting cost, if borne by millers (Rs./qtl. of cane)	3.05
5	Transportation cost (Rs./qtl. of cane)	0.66
6	Cost incurred by millers (Rs./qtl. of cane) {sum of rows 3 to 5}	47.21
7	Cost incurred by farmers (Rs./qtl. of cane)	103.91
8	Total cost of sugar produced from crushing of 1 qtl of cane (Rs.) {sum of rows 6 & 7}	151.12
9	**Cost incurred by farmers expressed as a percentage of the total cost**	**68.76**

Note: Data relates to triennium ending 2009-10 (data of sugar cane production has been taken for six states, namely Andhra Pradesh, Haryana, Karnataka, Maharashtra, U.P and Tamil Nadu, which accounted for 88% of sugarcane produced at all India level during 2009-10)

3.5 The value of sugar taken above for working out farmers' share in sugar value includes not only the cost of sugarcane and operating costs, but also capital costs, inclusive of depreciation, interest on debt, and a 12% post-tax return on the capital employed. Thus, farmers will get a share of the profits.

3.6 Over and above this share of sugar value, the same value-sharing ratio should also apply to the value/revenue generated from saleable primary by-products of sugar production. Therefore, it is suggested that 70% of the value of all three major primary by products, namely bagasse, molasses and press mud (all at *ex*-mill price) including the imputed value of molasses for an integrated distillery and of bagasse for cogeneration**,** be fixed as cane payment due to the farmer for the sugarcane supplied.

3.7 Based on an analysis of the data available for the by-products, and by loading that on the value of sugar, the value sharing ratio for cane farmers is estimated to amount to roughly 75 per cent of the *ex*-mill value of sugar alone. The CACP report *(Ibid.)* notes that

[2] **"Price Policy for Sugarcane: The 2013-14 Sugar Season", Commission for Agricultural Costs & Prices**

the actual prices paid to sugarcane farmers in Maharashtra and UP, on an average for the period from 2004-05 to 2011-12, works out to 75 and 72 per cent of their respective sugar prices. CACP's data in this regard is presented in Table 3.2. The advantage of the proposed cane pricing system is that rather than farmers getting a fluctuating share in the sugar value chain, with accumulation of cane arrears in years of high price, they would have stability in payment of cane dues at about 75% of the value of sugar each year.

Table 3.2: Actual Prices Received by Sugarcane Farmers and SMP/FRP as Percentage of Ex-mill Sugar Prices in Maharashtra and U.P.

(Rs./qtl., per cent)

Sugar season	*Ex*-mill sugar prices		Cane prices paid to farmers		Cane prices as per cent of ex-mill sugar prices		SMP/FRP at State-specific recovery rate		Recovery rate (%)		SMP/FRP as % of *ex*-mill prices at State-specific recovery rate	
	Mah.	UP	Mah.	UP	Mah.	UP	Mah.	UP	Mah.	UP	Mah.	UP
2004-05	1601.66	1674.70	130.07	104.50	81.21	48.49	99.83	85.81	11.39	9.79	62.33	51.24
2005-06	1820.42	1692.29	140.62	112.50	77.25	66.48	103.00	83.83	11.66	9.49	56.58	49.54
2006-07	1452.29	1296.75	93.92	125.00	64.67	96.39	101.56	84.62	11.39	9.49	69.93	65.25
2007-08	1317.08	1492.71	93.41	125.00	70.92	83.74	106.44	83.89	11.80	9.30	80.81	56.20
2008-09	2082.29	2161.08	158.05	140.00	75.90	64.78	103.91	81.18	11.52	8.91	49.90	37.56
2009-10	3121.67	2889.58	214.69	165.00	68.77	57.10	157.31	129.84	11.51	9.13	50.39	44.93
2010-11	2806.67	2592.96	205.00	205.00	73.04	79.06	165.77	139.12	11.32	9.16	59.06	53.65
2011-12	2720.00	2950.00	235.00	240.00	86.40	81.36	172.78	145.00	11.32	9.16	63.52	49.15
Average					**74.77**	**72.18**					61.57	50.94

3.8 States may publish half-yearly mill-wise prices (including imputed price where applicable) and quantities of sugar and the by-products for this purpose. While scrutinizing the *ex*-mill sugar pricing data, the open market price of sugar, as ascertained in the process of competitive bids received while procuring sugar for PDS (which has been recommended separately, in lieu of the present levy sugar arrangement), net of taxes, may be kept in view.

3.9 The actual payment for cane dues would happen in two steps. The first would be payment of FRP a floor price as per extant mechanism, *i.e.*, within 15 days of receipt of the sugarcane by a mill. Balance payment of cane dues will be done subsequent to publication of half-yearly *ex*-mill prices and values, on the lines indicated.

3.10 Suitable changes may be made in the relevant control orders to give effect to the recommendation outlined above.

3.11 With such a system in operation, states should not declare an SAP.

Chapter 4

Levy Sugar and Release Mechanism for Non-Levy Sugar

Context

4.1 "Levy sugar" means sugar requisitioned by the Central Government under clause (f) of sub-section (2) of section 3 of the Essential Commodities Act, 1955. It is administered through the Levy Sugar Supply (Control) Order, 1979. Under this system, every sugar mill mandatorily surrenders 10% of its production to the Central Government as levy sugar, at a pre-determined price. This enables Central Government to get access to low cost sugar stocks for distribution through PDS and for supply to Army Purchase Organization (APO) / Central Paramilitary Forces.

4.2 The quantity of levy sugar required for distributing in the Public Distribution System (PDS) and for supply to Central Paramilitary Forces is about 28 lakh tonnes, as indicated in Table 4.1.

Table 4.1: Annual Requirement of Levy Sugar

(in lakh tonnes)

State Governments / UTs	26.00
Festival quota	1.00
Army Purchase Organization (APO) / Central Paramilitary Forces	1.00
Bhutan	0.038
Total	**28.03**

The retail price of levy sugar issued under PDS in the country is Rs. 13.50 per kg since 1.3.2002.

4.3 State agencies / FCI lift levy sugar after paying the *ex*-mill levy sugar price plus excise duty, sugar cess, and education cess and transport it to their godowns in respective states / UTs. The responsibility of distribution of sugar through the Public Distribution System and maintaining smooth operation of PDS in the State / UT lies with the respective State Government / UT Administration.

The price paid to mills for levy sugar by the government is based on certain norms which take into account factors such as the average notified cane price payable by sugar mills to cane growers, the cost of conversion of cane into sugar, extra realizations made on sale of non-levy sugar stocks, and the need for ensuring a reasonable return on capital employed

by the industry on disposal of the entire production of sugar, both levy and non-levy/free-sale.

Issues:

4.4 Delays in procurement/supply of levy sugar have come up for criticism time and again. Delays have, in turn, been blamed on problems of logistics and long distance transportation. As transportation by road is more expensive, agencies involved prefer rail transportation for which complete rake loads are required. Complete rake loads are not always possible in view of the levy obligation being worked out on quarterly (till recently monthly) basis for sugar mills, based on their level of production. This has resulted in allocated quantities not being lifted fully. The poor financial condition of the state government agencies due to delays in processing of sugar subsidy claims and thus release of payment by the Central Government has also contributed to the full allocation not being lifted in time by agencies.

4.5 There have been protracted litigation and court judgements on issues related to fixation of price of levy sugar**.** As the process of fixation considers different factors and has changed over time to take into account changing conditions, the matter has never reached a satisfactory finality.

4.6 The industry has repeatedly been complaining of losses incurred on account of supply of levy sugar which get loaded on to non-levy sugar, escalating the open market price of sugar. The issue has assumed larger proportions in recent years as certain State Governments have been announcing State Advised Prices (although calculation of the levy price is based on FRP).This does not allow sugar mills, especially in North India, where recovery levels are relatively lower, to cover their cost of production. This, in turn, has resulted in rising cane price arrears in certain States. Government's policy of asking mills to carry forward their levy sugar liability of previous years has also been questioned. The Hon'ble High Court of Patna has ruled that levy obligation cannot be carried over to the succeeding sugar season. This is likely to affect the availability and allocation of levy sugar.

4.7 Levy price is worked out on the basis of FRP of sugarcane declared by the Centre, and not the actual price (SAP or final price) paid by mills to farmers. This amounts to a sort of 'implicit tax' on mills which gets transmitted either to the farmer as the capacity of the mill to pay a remunerative price to farmers is reduced by that amount, or to the consumers of non-levy sugar as the price of sugar for them goes up. Basically, what the policy of levy on sugar translates into is cross-subsidization of PDS sugar consumers by sugar mills, cane farmers and non-levy sugar consumers. This use of a price policy instrument to achieve equity objectives compromises efficiency.

4.8 Central Government has been following this policy of partial control and dual pricing of sugar to ensure that levy sugar is distributed under PDS to the target population at a uniform retail issue price throughout the country. The financial implication of removing the levy obligation on mills is around Rs. 3,000 crore, over and above the current subsidy paid for the difference between the levy and the issue price and costs of distribution.

4.9 The policy of levy sugar puts the burden of a government social welfare programme (PDS) on the industry. A price lower than the open market price implies lower returns for mills, which eventually impacts cane payments to farmers. And since levy obligations can be carried forward for up to two years, sugar mills are forced to carry physical stocks of levy. Levy obligation blocks cash flow and capital and adds to the interest burden and the carrying cost of the firm. It is unfair to impose the costs of a social welfare programme on commercial organisations since it inherently puts that industry at a disadvantage vis-à-vis another industries.

The Way Forward:

4.10 The committee is of the view that dispensing with levy sugar translates into doing away with a centralised arrangement for PDS sugar. States which want to provide sugar under PDS may henceforth procure it from the market directly according to their requirement and may also fix the issue price. However, since currently there is an implicit cross-subsidy of around Rs 3,000 crore on account of the levy, financial support of the Central Government may be provided to help states meet the cost to be incurred on this account over and above the current subsidy being given for the difference between the levy price and the issue price. It should be done along with rationalization of the current issue price for PDS sugar which has been kept constant for the past so many years. The additional support from the Central Government would be capped at the current level of implicit subsidy. Part of the cost of this additional support could be met as discussed in succeeding paragraphs.

4.11 The sugar cess @ Rs. 24 per quintal of sugarcane is currently credited to the Sugar Development fund (SDF), and at current levels of production of around 250 million tonnes of sugarcane, this translates into an annual revenue stream of about Rs. 600 crore. In addition, a few hundred crore rupees annually accrue on account of payment of past concessionary loans from SDF. This could be used to meet a part of the cost of PDS sugar procurement, in place of the levy route, after making this an eligible item for utilisation of the cess.

4.12 Additionally, an additional excise duty or a mild import/export duty @ 5-10% may also be levied. Going by export figures in recent years, and the current market prices, annual export of around 2 million tonnes on the average would translate into a revenue stream of around Rs. 300-600 crore annually. Further, as a result of dismantling of levy,

the sugar sector profitability would rise and tax receipts grow. Competitive procurement of PDS sugar and reduction of open market prices by elimination of cross-subsidy would also help. In future, states would be expected to meet any enhanced level of subsidy from their own resources.

Regulated release mechanism of non-levy sugar and related issues

4.13 The sugar remaining after supplying as levy sugar (at present 90%) is allowed to be sold as non-levy sugar**,** which is called free-sale sugar in common parlance, by way of periodic releases (now quarterly), applicable uniformly to all sugar mills.

4.14 The quantum of non-levy sugar to be released for a particular duration (now a quarter) for domestic consumption is decided by the Central Government having regard to the production, stock, requirement and prices of sugar in the country. On the basis of the non-levy (free sale) quota decided by the Central Government, monthly release orders for sale of sugar in the open market are issued. This mechanism supposedly helps keep sugar prices in open market at a stable level. In effect, the sale of entire production of sugar which is manufactured during five to six months of the sugar season (the sugar season begins on 1st October and ends on 30th September, although some South Indian mills start crushing earlier than October) is controlled and regulated for sale and distribution in a staggered manner.

Issue:

4.15 Not allowing market forces of demand and supply to operate as in the case of other industries to bring about price equilibrium leads to market distortions. Mills can neither take advantage of high prices to sell the maximum possible stock, nor dispose of their stock to raise cash for meeting various obligations. This adversely impacts the financial health of mills and their ability to pay sugarcane farmers in time. It also leads to speculation, litigation (with courts permitting sale of levy or regulated non-levy quota) and inaccurate reporting by mills.

4.16 Dual pricing of sugar adds to costs as stock holdings get duplicated – one for PDS and the other for non-levy sugar. Mills are locked into fixed ratios of supplies and cannot hold and finance stocks at least cost, which could lower stockholding and finance charges.

4.17 How far the regulated release policy has succeeded is debatable as sugar prices have demonstrated a high degree of volatility and have risen regardless in years of poor production. Also, it is worth noting that there is no other agricultural commodity which is subject to such a regulated release system and even sugar is not regulated anywhere else in the world.

The Way Forward:

4.18 Most of the stakeholders in the sector, including farmer associations, have requested for the removal of these two controls. It has been strongly argued that removal of these controls will lead to better financial health of the sugar mills. This will, in turn, lead to timely payments to the farmers and reduction in cane arrears.

4.19 Removal of levy obligation and the regulated release mechanism would lead to an efficient, competitive market and eliminate inefficiencies that have crept into the system.

Chapter 5

Trade Policy on Sugar

Context

5.1 The production of sugar in India has been volatile. For example, the production reached a peak of 28 million tonnes in 2006-07, falling to 15 million tonnes in 2008-09, and estimated to have increased again to 25 million tonnes in 2011-12. It tracks closely the production of sugarcane. The volume of exports and imports remain small in relation to the overall production – exports were 13% and imports were 5% of total production in 2010-11. Whether India is a net exporter or importer (measured by the difference between the value of exports and imports) of sugar varies over time. For example, it was a net exporter in 2010-11, but a net importer in 2009-10.

5.2 The framework for exports of food items is possibly motivated by national food security and self-sufficiency motives. In case of sugar, production and demand are forecasted at the beginning of the year; exports are allowed only if estimated production exceeds demand. The Directorate of Sugar (under the Department of Food and Public Distribution) makes the forecasts for sugar. The economy-wide quota for exports is set as the difference between the estimated production and demand.

5.3 Turning to imports, barriers for sugar generally remain high in relation to relevant comparators For example, the average applied tariff rate for sugar and sugar confectionery, according to the UN TRAINS database, at 45% in 2009 (the latest year available), is higher than Asian countries like Pakistan, Bangladesh, Sri Lanka and Thailand and is also higher than in Latin American countries like Brazil. However, as discussed below, there are years when duty-free imports are allowed to deal with inflationary pressures.

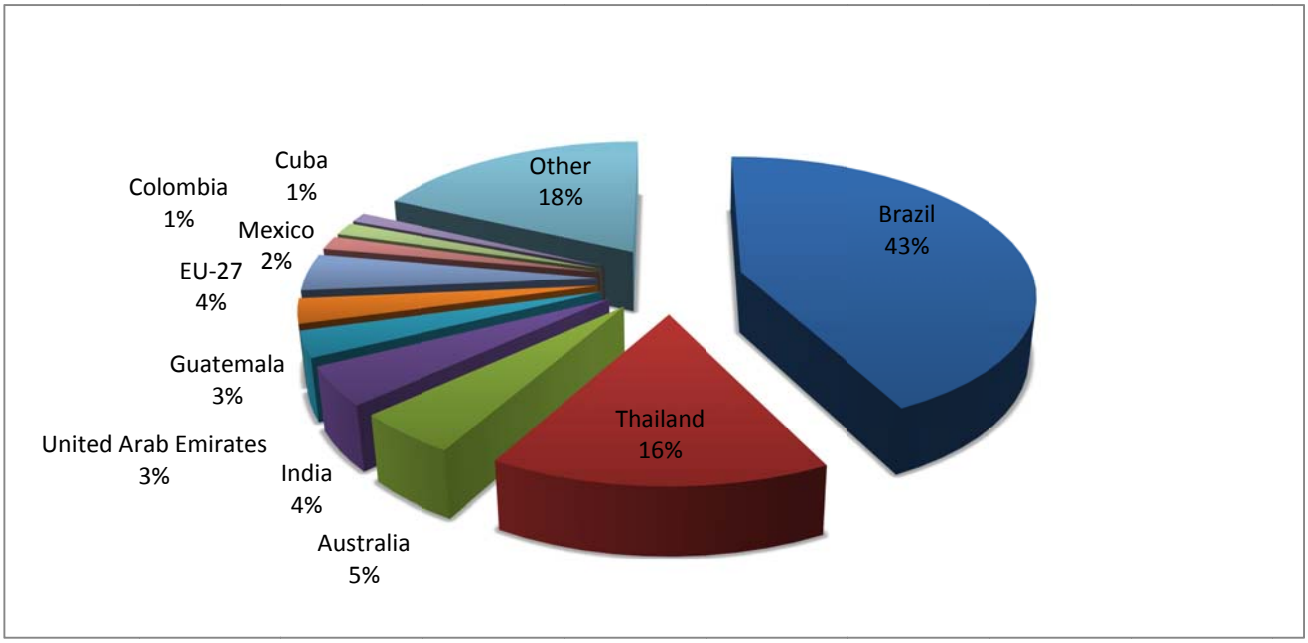
5.4 The policy response to rising inflation or inflationary pressures (through rise in world prices, for example) has been to use trade policy as a temporary, stopgap tool to curb such pressures. Broadly, the policy has been to ban exports and liberalize imports from time to time in order to augment domestic supply.

5.5 In 2009, in the wake of high and rising inflationary pressures in sugar (the year-on-year inflation rate reaching 70% in December 2009), Government of India extended duty-free imports of raw and white sugar through a series of notifications. In the budget announcement for financial year 2012/13, Government of India withdrew the import duty on sugar (both raw and white). However, recently, in July 2012, a 10% import duty on sugar has been reinstated. Export of sugar was also banned in September 2008. The ban stayed till February 2010 when it was lifted once inflationary pressures started receding.

Issues:

5.6 The policy interventions are aimed at stabilizing consumer prices. Whether this has really happened is an open question; nevertheless, the attempt to do so has been at the cost of considerable instability for sugar cane and sugar production. The decisions regarding the export and import of sugar are taken based on the domestic availability, demand and prices. A number of cascading import controls and export "permits" are used to achieve this. Thus, India's trade in the world trade sugar is "thin" and volatile. Even though India contributes 17% to the global sugar production, its share in the exports is only 4%. On the other hand, Thailand which contributes only 6% to the global sugar production has cornered 16% of the total export market in sugar. The export-import policy of the government does not allow firms to have a long-term relation internationally and impedes the growth of the sector. The policies are unanticipated and create uncertainty for the firms. Also the short-term cyclicality, which is largely a consequence of government intervention, adversely affects the long-term strategic development of the sector.

Chart 5.1: Global Exports in Sugar 2011-12



Source: United States Department of Agriculture, Foreign Agricultural Service (May 2012)

The Way Forward:

5.7 Liberalizing trade in sugar can incentivize investments in supply and over the long term reduce inflationary pressures. This can also reduce the need for temporary and stop-gap trade policy tools (e.g., export bans, duty-free imports, etc.) to deal with inflation.

5.8 In the short-term all existing quantitative restrictions on trade in sugar should be removed and tariffied. A clean and minimal level of export tax (say 5-10%) would be more predictable and efficient than the current regime which is complicated and involves cumbersome procedures (like forecasting production and demand, and the race for exporting under the OGL). It would be important to ensure that the export tax is low and not altered at will. Export licensing should be abolished completely. Having a predictable trade policy would be the key to raising investment in agriculture, and achieving economic efficiency.

5.9 The overall trade policy for sugar should be such that it is open at both ends, for imports as well as exports. Quantitative restrictions need to be abolished and tariffs should be used (import duty or export duty) within a narrow band of 5 to 10 per cent. Such a trade policy will be neutral to consumers as well as producers, and low rates of duty will ensure that no one is unduly favoured with high protective walls of import or export duties. That will promote efficiency in production and consumers will also pay a reasonable price in line with global prices.

5.10 While ordinarily export and import duty should be kept at the moderate level of 5 to 10 per cent and during the periods when world prices are either very high or very low, higher tariff may be set to meet domestic requirements of sugar in an economically efficient manner.

Chapter 6

Other Issues

A. Regulations relating to by-products

6.1 The Indian sugar industry crushes about 70-80 per cent of the sugarcane for sugar production, with the remaining cane accounted for by the production of local sweeteners (*khandsari* and *gur*), seed, feed, cane juice, chewing and waste. Some by-products, such as molasses, bagasse and press mud, are produced in the first stage of processing of sugarcane. The markets for these by-products are tightly regulated so that their true market value is not realized by the mills, leading to loss of potential revenue.

I. Molasses

6.2 Molasses are produced in the final stage of manufacture of sugar by the vacuum pan process from sugarcane or *gur*. The production of sugar and molasses is indicated at Table 6.1**.** It has some unrecoverable sugar, which is utilized to produce rectified spirit or alcohol of 94.5% purity. Almost the entire quantity of alcohol in the county is produced from sugarcane molasses.

Alcohol produced from molasses is primarily used for the following purposes:

(i) Use as potable liquor by diluting and blending;

(ii) Industrial use for production of various chemicals like acetic acid, acetic anhydride, ethyl acetate, acetone, mono-ethylene glycol (MEG) etc. These chemicals provide feedstock for a variety of industries such as synthetic fibres, pesticides, pharmaceuticals, paints, adhesives etc.

(iii) Blending with motor spirit (petrol) and use as a fuel as part of the Ethanol Blending Programme (EBP).

6.3 There is no control by the Union Government on production, pricing and distribution of molasses. There is no price control on the molasses in any State. However, the allocation and movement of molasses is controlled by the State Excise authorities. Any quantity exported or sold from sugar factory is recorded on a daily basis. Selling of any molasses requires a permit NOC from the State Excise Department, against which any quantity can be sold or purchased. It is obtained by the purchaser from the excise authority of the exporting State.

6.4 There are substantial variations in excise regulations on molasses across states. In Uttar Pradesh, the policy has been to reserve a certain proportion of molasses for production of country liquor. This proportion has typically been in the range of 25-30%.

Export of molasses to other states is generally not allowed. However, permission is granted on a case to case basis. A stable excise duty @ Rs. 110/- per M.T. is charged by the Excise Department for sale within U.P. and Rs. 150/- per M.T. for sale outside U.P. In Maharashtra, inter-state export and import of molasses is free, subject to state export fees @ Rs. 50/- per M.T. Export of molasses has been banned in Tamil Nadu. In Karnataka too, the Excise Department has stopped giving permission for the export from the state. Most states also charge an import fee on the molasses imported into the state.

Table 6.1: Production of Sugar and Molasses

Year	Sugar Production (in lakh MT)	Molasses Production (in lakh MT)
2006-07	283	131
2007-08	263	113
2008-09	145	65
2009-10	189	84
2010-11	244	107
2011-12 (Estimated)	260	115

Source: ISMA Handbook of Sugar Statistics, and the Chemicals and Alcohol Industries

6.5 Though there is broad agreement between all the competing users about the production of sugar and molasses in the country (Table 6.1), there is difference in the alcohol production figures between the sugar industry and two other competing user industries, *viz*., the alcohol and chemicals industries (Table 6.2).

Table 6.2: Alcohol Production/Availability*

(in crore litres)

Year	Deptt. of Chemicals	Alcohol Industry	Sugar Industry	Chemical Industry
2008-09	226.4	130	162	130
2009-10	176.72	166	210	168
2010-11	204.64	212	267	210
2011-12 (estimated)	--	226	282	225

*Figures indicated have been provided by the Department of Chemicals, and the alcohol, sugar and chemical industry bodies respectively.

Current regulatory arrangements of regulations relating to by-products impede development of a national market and consequently reduce economic efficiency

The Way Forward

6.6 Sale of molasses is an important revenue stream for sugar mills. Most state governments exercise control on its allocation and/or movement. This places mills in a disadvantageous position and distorts a market which has the potential to be truly competitive and efficient. The committee is of the view that there should be no quota imposed (quantitative restrictions) on the mills for sale of molasses. All user industries, *viz.*, potable alcohol, chemicals and petroleum product industries should compete for molasses, and the market should determine its price.

II. Bagasse

6.7 Bagasse (surpluses of requirement for boilers in the mill itself) was traditionally, used in the paper industry, but is now largely being used as fuel feedstock for cogeneration of electricity. As against a total country-wide estimated potential of 5,000 MW based on this feed stock, about 2,000 MW of capacity has already been created. Given the capital costs involved, private sugar mills have accounted for the major proportion, as many cooperative and public sector mills are in the red. However, even the latter have begun developing their cogeneration capacities through competitive bidding. At present, cost of generation is about Rs. 3 to 3.50 per unit, whereas preferential power tariffs set by State Electricity Regulatory Commissions (SERCs) are in excess of Rs. 4.25 per unit. Thus, cogeneration is ecologically and financially a viable proposition and is growing rapidly.

6.8 The regulatory regime for cogeneration is part and parcel of the regulatory regime for renewable energy. The provisions constituting the renewable energy regulatory regime are in the Electricity Act, 2003, and the National Electricity Policy, 2005 and Tariff Policy, 2006 framed thereunder.

6.9 Industry representatives have apprised that certain states, like Tamil Nadu & Karnataka, have invoked Electricity Act provisions that empower state government to impose restrictions on sale of power, are not allowing open access sale during the months of greater power shortfall. This has been challenged in court. Some states, like Karnataka, are yet to give effect to the guidelines issued by the Central Electricity Regulatory Commission in 2010 for issue of Renewable Energy Certificates, which can be sold outside the state. Industry has represented that the imposition of restrictions on sale to users other than the local power utility and the non-implementation of the Renewable Energy Certificate arrangement for sale in other state are affecting revenue realization from cogeneration in some states.

6.10 The Ministry of New & Renewable Energy, in its Annual Report 2010-11, has observed that although the existing regulatory framework for renewable power has created a momentum for harnessing renewable energy based power potential, there appears to be a need for mid-course corrections for rapid growth of renewable power in the country

The Way Forward

6.11 From the above, it is evident that issues relating to cogeneration pertain to implementation of Electricity Act provisions and regulations framed there under for all forms of renewable energy. The committee feels that this fall within the domain of States and SERCs. Policy reform requires legislative and regulatory changes at the central level as part of the overall regulatory reform for renewable energy, and a joint exercise of the Ministries concerned is already under way. This should be expedited to harness the true potential of power generation and make the sugar mills energy complexes. However, the committee feels that there should be no quantitative or movement restrictions on the movements of the by-products and prices should be market determined. There should be no regulatory hurdles preventing sugar mills from selling their surplus power to any consumer.

III. Press Mud

6.12 Press mud, is a solid waste by-product of the sugar industry. It is rich in organic compounds like nitrogen, phosphorus, magnesium and potassium. It is being utilized to produce bio-compost by treating it with spent wash, a liquid waste from the distillery, which is rich in potash, on a stack of press mud called windrows. Over a cycle time of 40-50 days, spent wash mixed with press mud gets composted and forms organic manure.

6.13 Concerns have been raised by the Ministry of Environment & Forests on the use of spent wash in bio-composting as spent wash is highly acidic in nature and chemicals leach into the ground. It has been instructed that spent wash should be incinerated in the mill itself. However, the process of incineration has an adverse impact on the life of the boilers, and also contributes to air pollution. The committee strongly recommends further research in is area so that a sustainable solution can be found to enable utilization of the press mud / spent wash without environmental overload.

B. Packaging of Sugar

Context

6.14 Major regulations on the sugar sector have been dealt in detail in Chapters 2 to 5. However, there are other aspects of sugar regulation that impinge on the overall efficiency and profitability of the sector. One of them relates to the controls on packaging of sugar. As per the Jute Packaging Materials (Compulsory Use in Packing Commodities) Act, 1987 (JPMA), 100% compulsory packing of sugar and food grains is to be carried out in jute bags.

Issue

6.15 The industry in its interaction with the committee has represented that JPMA is putting unwarranted financial burden on sugar mills and consumers, and that there is a need to free the sugar sector from the restrictions of compulsory packing in jute bags for the following reasons:

- Raw jute production has not increased in proportion to the increase in production of sugar.
- There is acute shortage of jute bags and they are more costly too. The cost of a 50-kg HDPE bag is Rs. 15 whereas the cost of 50-kg jute bag is Rs. 35. This translates into increase of Rs. 0.40 per kg of sugar.
- Food grains being in the public sector, FCI / State agencies procure jute bags at a pre-administered price announced by the Government every month, whereas sugar being mostly in the co-operative and private sector and strictly under JPMA, no price protection is available and the industry has to procure from the open market at a higher price.
- About 75% domestic production of sugar is consumed by bulk commercial consumers. Jute bags are not acceptable to such consumers because loose fibres of jute can find their way into sugar, compromising quality.
- Cement and fertilizer have already been exempted from JPMA in 1998 and 2001 respectively. Sugar industry should be treated at par with other private industries, *viz.*, the cement and fertilizer industries.

6.16 It may be seen that the objective of mandatory packaging of sugar and food grains as under JPMA is to protect another agricultural commodity, *viz.*, jute. However, with technological advancements there has been development of better and cost-effective packaging materials. Keeping pace with the changes, cement and fertilizer were removed from the purview of JPMA.

The Way Forward

6.17 As mentioned above, food grains being in the public sector, FCI / State agencies procure 60% of jute bags at a pre administered price announced by the Government every month, whereas sugar being in the co-operative and private sector and strictly under JPMA, no price protection is available and the industry has to procure from the open market at a higher price. This puts an additional financial burden on the industry and also limits its ability to utilise new packaging materials. Therefore, the committee recommends that sugar should be removed from the purview of JPMA.

Chapter 7

Conclusion

7.1 The recommendations made in this report will bring about greater certainty, stability and rationality into the system and has the potential to propel this sector to a greater height. It will incentivise the sugar industry to put up integrated plants producing not only sugar, but also ethanol from molasses and power from bagasse. These can become energy hubs in rural areas, and given that the demand for energy (fuel and power) will keep increasing with rising incomes and population, sugar industry can latch on to this rising demand, diversify and avoid the usual cyclicality in its production and prices, and bring greater prosperity to rural areas. A vibrant and multi-pronged sugar sector can be a harbinger of prosperity and growth for rural India, provided we get the policy prescriptions right.

7.2 Market forces guarantee that the most efficient firm survives competition. But as discussed, government policies have provided artificial protection to some inefficient firms. Cane area reservation and maintenance of a minimum distance between mills constitute barriers to entry, created by the government, and are a source of monopoly power for firms. They can continue to produce sugar at high costs and have no incentive to invest in research and development either. As a consequence, most areas still have low cane yields and low sugar recovery, resulting in substantial losses to farmers. In economic theory, government intervention is required in the functioning of a market when the market is unable to achieve Pareto efficiency, that is when the outcome achieved by the market can be improved for some or all market players without adversely affecting any player. From a theoretical perspective, market failure warrants intervention and that may not necessarily be by government, to attain social efficiency.

7.3 Besides efficiency, public policy has also been guided by the need to ensure an equitable society and ensure fair value to all. Rather than economic rationale for government intervention, political processes have often guided government policy. In the light of institutional limitations and a social set-up of inequalities, public policy regarding the sugar industry should strike a balance between the needs of the farmer, the industry and the consumer. While consumers aspire for better prices and adequate availability of sugar, sugar mills look for better revenues on a large production base supported by comfortable availability of sugarcane at a low effective rate. Farmers, on their part desire high productivity, a low cost of production and high prices for the cane. Therefore, in arriving at future course of action, it is important to understand the objective of intervention and view all policies as a means of achieving the goals.

7.4 In case of sugar, regulations have limited the industry's ability to innovate, invest and improve its efficiency, and thereby realize its true potential. Policies such as cane area reservation have taken away a firms incentive to innovate, and others such as levy obligation have imposed external costs on the firm. While it is not government's responsibility to ensure that a business does well, government ought not to impose costs on the firm to deliver on State's goals. Other than this, policy should be designed with an objective of achieving industrial and rural growth and providing incentive to firms to innovate, invest and improve its efficiency.

7.5 Many firms are now getting into mutually beneficial contracts with the farmers in their area. The firm is responsible for providing them with the knowhow to improve the sucrose content of cane, educating them, transportation of cane etc. in return for continuous supply of cane across the years. De-regulation of cane and sugar production will incentivize mills to compete for cane supply and develop a healthy long term and productive relationship with farmers.

7.6 Government de-regulation is likely to reduce the cyclicality of cane production too. With consolidation and contracts between mills and farmers, there will be more sustained cultivation of cane across years. Also firms will be able to manage their cash flows better and reduce inventory costs, which in the past have led to delay in payment to farmers. Guaranteed payments to farmers and a fair return for their produce are more likely to reduce the volatility in cane acreage and consequently sugar production and prices.

Annexure-1

PRIME MINISTER'S OFFICE

South Block
New Delhi – 110 001

The issue of deregulation of sugar sector has been under consideration for some time now. Earlier a small group headed by the Chairman, Economic Advisory Council to the Prime Minister was examining an acceptable price sharing formula for sugarcane that can make decontrol more acceptable to the farmers in particular, and other stakeholders in general.

2. In the meantime, the Minister of State (I/C) for Consumer Affairs, Food & Public Distribution has stated that it would not be desirable to go ahead with the cane price sharing formula in isolation without looking into the other aspects of the deregulation, in view of the fact that the Essential Commodities (Amendment & Validation) Act, 2009 has been challenged in the Supreme Court and the matter is pending. The Minister is, therefore, of the opinion that the larger issue of deregulation of sugar sector may be examined by a Committee under Chairman, EAC to the Prime Minister. This matter has been examined.

3. In view of the above, the Prime Minister has approved the constitution of a committee to look into all the issue of deregulation of sugar sector, as under:

(i)	Dr. C. Rangarajan, Chairman, EAC to PM	-	Chairman
(ii)	Dr. Kaushik Basu, Chief Economic Advisor	-	Member
(iii)	Secretary, Deptt. of Food & Public Distribution	-	Member
(iv)	Secretary, Ministry of Agriculture & Cooperation	-	Member
(v)	Dr. Ashok Gulati, Chairman, Commission for Agricultural Costs & Prices	-	Member
(vi)	T. Nanda Kumar, Member, NDMA	-	Member
(vii)	Secretary, EAC to PM	-	Convener

4. The Chairman of the Committee is authorized to invite one or two experts/academicians having knowledge and experience of sugar policy to the Committee as Special Invitees.

Sd/-
(L. K. Atheeq)
Joint Secretary to PM
Tele: 23793308

Secretary, Economic Advisory Council to the Prime Minister
PMO ID No. 730/66/C/2/2011-ES.2 44288 Dated: 20.01.2012

Annexure-2

Meetings of the Expert Committee, and Interactions with Chief Ministers and Stakeholders

A. Expert Committee Meetings

1st Meeting	New Delhi	27th February 2012
2nd Meeting	New Delhi	3rd May 2012
3rd Meeting	New Delhi	3rd September 2012

B. Meetings with Chief Ministers

Meeting with Shri D. V. Sadananda Gowda, then Chief Minister of Karnataka	Bangalore	12th April 2012
Meeting with Shri Prithviraj Chavan, Chief Minister of Maharashtra	Mumbai	14th June 2012
Meeting with Shri Akhilesh Yadav, Chief Minister of Uttar Pradesh	Lucknow	25th August 2012

C. Meetings with stakeholders

Meetings with the following stakeholders: a) Indian Sugar Mills Association (ISMA) b) National Federation of Cooperative Sugar Factories Ltd. (NFCSF)	New Delhi	10th May 2012

c) Consortium of Indian Farmers (CIFA) d) Kisan Jagriti Manch e) Confederation of Indian Industries (CII) f) M/s Riga Sugar g) M/s Dwarikesh Sugar h) Indian Chemical Council (ICC)		
Meeting with the representatives of South Indian Sugar Mills Association (SISMA)	Bangalore	12th April 2012
Meeting with the following stakeholders: a) Maharashtra State Co-operative Sugar Factory Federation b) West India Sugar Mills Association c) Swabhimani Shetkari Sanghatana	Mumbai	14th June 2012
Meeting with the representatives of sugar mills' and farmers' associations from UP	Lucknow	25th August 2012