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India

Sugar Annual

2018

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Report Highlights:
India's centrifugal sugar production in marketing year (MY) 2018/19 (Oct-Sept) is expected to rise 4.2 percent to a record 33.8 million metric tons (MMT). Uttar Pradesh will be the largest producer of sugar in India, for the third year in a row. A higher sugarcane production forecast of 415 MMT on 5.2 million hectares (MH) will contribute to the above estimates. Assuming normal market conditions, sugar mills will be encouraged to use up surplus inventory of up to 6 MMT. With incentives, this surplus could be exported, as out-year sugar supply will be 31 percent over consumption and normal stock requirements (34.4 MMT).

Note: All sugar data in the report are raw value basis unless otherwise mentioned.

Commodities:
Sugar, Centrifugal

PRODUCTION:

Centrifugal Sugar Production in MY 2017/18 will rise 46 percent to 32.4 MMT while Out-Year Prediction is Still Higher at a Record 33.8 MMT

MY 2018/19 centrifugal sugar (henceforth sugar) production is forecast to rise 4.3 percent to a record 33.8 MMT, which includes 560,000 metric tons (MT) of *khandsari* (a local type of low-recovery sugar prepared by open-pan evaporation) and 31.1 MMT of milled sugar (33.3 MMT raw equivalent) (Table 4). An expectation of an improved sugar recovery rate for the second consecutive year, increases in cane crushing volume as a result of larger cane production, and assumed benefits from higher cane by-product production (for integrated mills) should encourage higher sugar production.

Uttar Pradesh (UP) will be the largest producer of sugar in India, three-years in a row; followed by Maharashtra, which is expected to trail marginally behind UP. Likewise sugar production in Karnataka will recover to its near normal levels (five-year average). Combined, these states will contribute almost 84 percent of total sugar production in the out-year. Cane supplies to *gur* (jaggery or crude, non-centrifugal lump sugar) manufacturing units will return to higher than normal levels, with out-year *gur* production reaching upwards of 6.6 MMT, 9.2 % above the current year's estimate.

Concurrently, India's sugar production in MY 2017/18 will rise 46 percent to 32.4 MMT (combination of *khandsari* and mill sugar) due to higher than anticipated sugar production from Maharashtra and Karnataka. A 10 percent increase in average cane yield along with an improved national sugar recovery rate from 11 percent to 11.32 percent will contribute to record sugar production. Also, receding cane arrears (reduced debts) from preceding seasons will help increase availability of cane for supply to mills.

However, declining sugar prices in conjunction with a rising Fair and Remunerative Price (FRP)/State Advised Price (SAP) for MY 2017/18 (Table 7) has increased the backlog of the sugar companies' dues payable to the farmers in the ongoing season, particularly in states where cane costs are not directly linked to Revenue Sharing Formula (RSF)[1]. In latter case, farmers are paid the FRP as a first installment; if dues to farmers under the RSF are more than the FRP, than they will be entitled to a second payment. The FRP for the ongoing season is INR 255 as against INR 230 in previous years. However, MY 2016/17 sugar production is estimated to remain unchanged at 22.2 MT (Table 1).

Sugarcane Production in MY 2018/19 will Rise to 415 MMT on 5.2 million hectares (MH)

Assuming favorable growing conditions and a positive outlook for the 2018 monsoon season, cane planting for MY 2018/19 is expected to rise by 250,000 hectares to 5.2 MH. Cane yield is expected to be at the current year's level. The national average for cane yield has improved significantly and was

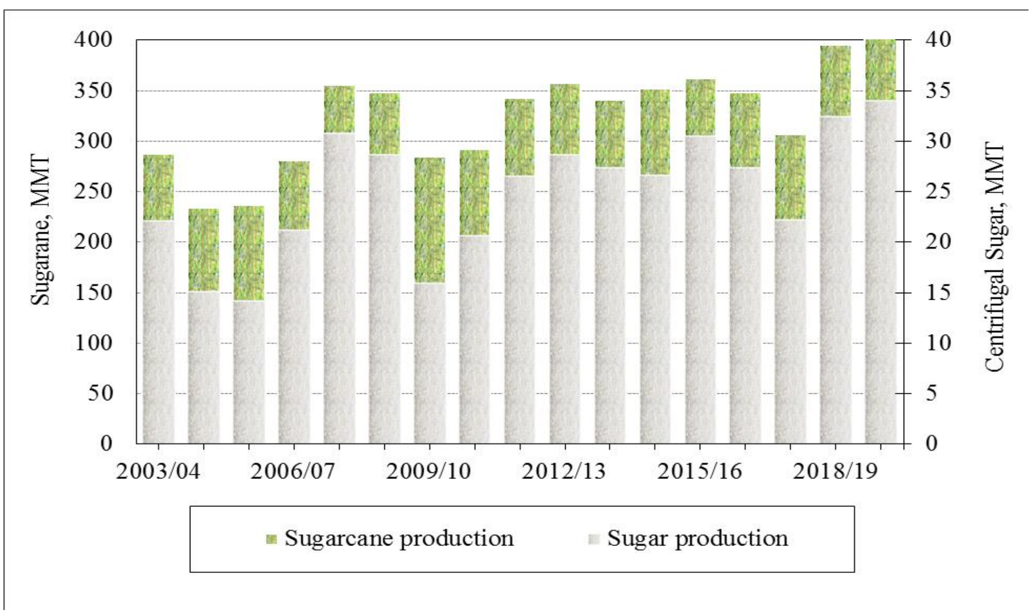
[1] The revenue sharing model noted above was recommended in 2012 by a GOI appointed expert committee under C. Rangarajan, Chairman of the Prime Minister's Economic Advisory Committee. The committee recommended that states enact one of two policies for implementing a revenue sharing program: 1) cane prices are set at 75 percent of the value of the sugar produced from one quintal of cane, or 2) sugar prices are set at 70 percent of the sales revenue for sugar, molasses, bagasse and press-mud produced from a quintal of cane

up 10 percent above its five-year average of 69.6 MT/hectare, due to a an increase in early season and high-yielding cane varieties in the states of UP and Maharashtra, along with superior cane management practices. As a result of the larger area and improved yield, sugarcane production in MY 2018/19 is expected to rise 5 percent to 415 MMT.

A prediction of a normal monsoon for the third straight year from the Indian Meteorological Department (IMD), government of India (GOI), and a lower probability of deficient rainfall are both indicators (IMD Press Release April 16, 2018) that reservoirs and ground water levels will rebound, particularly after reports of weak precipitation post-2017 monsoon[2] season. In addition to the above forecast, greater returns from sugarcane vis-à-vis competing crops, and mostly settled cane payments for the preceding seasons (except for MY 2017/18) should incentivize farmers to plant more cane in MY 2018/19. Additional planting area will likely come from the states of Karnataka and Maharashtra.

The 2nd advance estimate from the Ministry the Agriculture (MinAg), GOI, calculates sugarcane production in MY 2017/18 at 353.22 MMT from 4.95 MH. However, Post estimates current year cane production at 395 MMT from 4.95 MH, reflecting the latest data from various industry sources. However, the 'final' cane production estimates for MY 2016/17 of 306.06 MMT from 4.56 MH have been adopted by Post.

Figure1. India: Sugarcane and Centrifugal Sugar Production, in MMT



Source: Industry and trade sources

CONSUMPTION:

Out-year sugar consumption is forecast at 27.5 MMT, four percent above the current year estimate of 26.5 MMT. A strong demand from bulk buyers, food processors', quick service restaurants, sweet meat shops, households, a growing population, rising income and changing food consumption patterns should

[2] Except for Maharashtra state which received good monsoon rains in the post-2017 monsoon season.

support higher consumption in the out-year. Bulk users account for two-third of total sugar consumption in India. In addition to the above, most *khandsari* sugar is consumed by local sweet shops and *gur* is mostly consumed in rural households for food, and feed use as well.

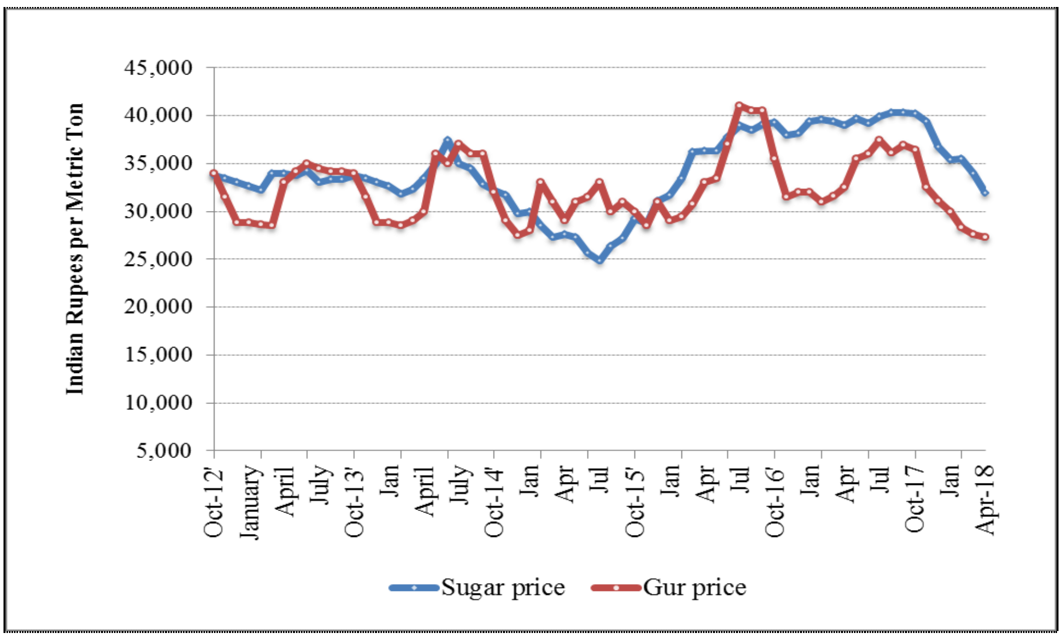
TRADE:

Market Prices

Sugar prices dropped more than 21 percent in the last 6 months due to more than anticipated sugar production in MY 2017/18. Compared to the corresponding period last year, sugar prices are down 7 percent despite firm Indian demand during the festival season (September – February). In fact, before falling, sugar prices (wholesale) rallied 62 percent in the last 27 months to peak at INR 40,300 per MT in October 2017.

Generally, *gur* prices move in tandem with sugar prices, either at a premium or at a discount. At current price levels it is selling at a discount to $60 per MT to sugar (quoted at $486 per MT). In fact, *gur* prices fell 26 percent in the last seven months in response to surplus cane production (Figure 2). *Gur* prices will follow domestic and international price movement for its future direction.

Figure 2. India: Sugar and Gur Prices in Delhi Market



Source: Industry and trade sources

Sugar Trade

Assuming normal market conditions, sugar mills will be encouraged to use up surplus inventory, up to 6 MMT. With incentives, this surplus could be exported, as out-year sugar supply will be in excess of 31 percent over consumption and normal stock requirements (34.4 MMT). The commercial export basket will ideally include raw and white sugar in equal proportion. Imports are likely to be negligible as a result.

Post estimates that sugar exports in MY 2017/18 will be close to 2 MMT of which an estimated 1 MMT will be sugar re-exported under the Advance Authorization Scheme (AAS), and the other half (1 MMT) will be commercial sales. If this is accurate, then 300,000 MT of raw and 700,000 MT of white sugar sales looks plausible, but only with incentives as Indian sugar prices are not competitive at the moment (Industry Source). Concurrently, sugar imports in MY 2017/18 are estimated at 1 MMT which is also under the AAS. Trade data suggest that an estimated 550,000 MT was imported in the last 6 months (Oct-March). India mostly imports sugar from Brazil, however other countries such as the UAE, Germany, Italy, France and lately the United States (average annual sales of 130 MT to 190 MT, HS Code: 170199) have started to ship small volumes to India. Myanmar, Sudan, Somalia, UAE, Kenya, Saudi Arabia, and neighbors are important buyers of Indian sugar.

Last year, India imported 2.7 MMT of sugar of which 0.725 MMT was imported under Open General License (OGL) and the remaining under the AAS. Under OGL, an estimated 0.5 MMT was imported at zero percent import duty, of which 480,000 MT actually arrived. Another 300,000 MT was slated for import at 25 percent import duty, of which 245,000 MT was actually imported, thus bringing the total to 725,000 MT. Sugar (refined) re-exports under AAS is reported at 2.15 MMT.

a) Trade Policy

Anticipating surplus sugar production this year, the GOI came out with a host of policy measures to help (1) stabilize domestic sugar prices, (2) prevent cheaper imports, (3) encourage surplus stock clearance, (4) improve cash flow and net realization for sugar mills, and (4) encourage timely payment to farmers while reducing mounting cane arrears. The measures taken are as follows: i) Introduced a stockholding limit for 2 months starting February 2018 through March 2018, ii) doubled the import duty on (white and raw) sugar to 100 percent (without an end date), iii) dropped the export duty on sugar from 20 percent to zero on March 20, 2018, iv) introduced 2 MMT of exports under the Minimum Indicative Export Quota (MIEQ) scheme, and v) allowed export of white sugar until September 2018 under the Duty Free Import Authorization (DFIA) scheme[3], under which exporters are allowed to import sugar at zero duty within three years.

According to reports from the Ministry of Consumer Affairs, Food and Public Distribution, GOI, an estimated INR 112.7 billion rupee was outstanding as cane price arrears (on SAP/FRP basis, and where applicable) against the sugar mills for MY 2017/18 (about 67.2% dues have been cleared, up to Jan 15, 2018). Pending cane arrears for sugar season 2014/15 through 2016/17 was however estimated at INR 28 billion. This is in addition to arrears mentioned above (Cane Price Arrears, page 88).

STOCKS:

Ending stocks in the out-year are forecast upwards of 11.8 MMT and is more or less equal to a 5 month consumption requirement. Stocks for the current sugar season are slightly trailing behind at 11.5 MMT

[3] Under the Duty Free Import Authorization (DFIA) scheme exporters are allowed to import duty free sugar **after** meeting export obligations. Contrarily, under the Advance Authorization scheme the local sugar millers or exporters are allowed to import raw sugar duty-free against a **future** export commitment.

which again is sufficient for the same time period. Ideally, the minimum stock requirement is for 3 months consumption.

POLICY:

Sugarcane Production and Pricing Policy

The GOI supports research, development, training of farmers, transfer of new varieties, and improved production technologies (seed, implements, pest management) to sugarcane growers, to raise yields and recovery rates. The Indian Council of Agricultural Research conducts sugarcane research and development at the national level. State agricultural universities, regional research institutions, and state agricultural extension agencies support these efforts at the regional and state levels. Central and state governments also support sugarcane growers by ensuring financing and input supplies at affordable prices.

The GOI Budget 2018/19 (April-March):

The Union Budget 2018/19 (April-March) has allocated INR 6.11 billion ($76 million) for schemes financed under the Sugar Development Fund compared to INR 9.18 billion (revised) allocated in Union Budget 2017/18. The fund is used to support research, extension, and technological improvement in the sugar sector. The SDF[4] is also used to support sugar buffer-stock operations, provide a transport subsidy for sugar exports, and provide an interest subsidy on loans for the installation of power generation and ethanol production plants (into a zero discharge plant). Additionally, the latest GOI budget has not allocated and or extended funds for i) interest subvention (a low interest subsidy) for extending soft loans to sugar mills and for ii) production subsidies to sugar mills for timely payments to farmers' (GAIN IN8014).

The fair and remunerative price (FRP) system:

The GOI establishes a minimum support price (MSP) for sugarcane based on recommendations from the Commission for Agricultural Costs and Prices (CACP), consultations with state governments, and sugar industry and cane growers' associations. In MY 2009/10, the GOI announced a new FRP system that links cane prices with miller's incomes[5]. Several state governments augment the MSP/FRP, typically by 30-35 percent, due to political populism rather than market pricing. Sugar mills are required to pay the "state advised price" (SAP) to sugarcane farmers irrespective of market prices. A forecast of a smaller cane crop normally encourages millers to pay higher cane prices, resulting in prices which exceed the MSP/FRP in most of the growing states.

[4] As per media reports, starting July 1, 2017, when the Goods and Services Tax (GST) came into effect, the sugar cess (tax) was believed to have been dropped and a separate budgetary provision was made for the Sugar Development Fund (SDF) for 2017/18.

[5] With the amendment of the Sugarcane (Control) Order, 1966 on 22.10.2009 and the concept of Statutory Minimum Price (SMP) of sugarcane was replaced with the 'Fair and Remunerative Price (FRP) of sugarcane for 2009-10 and subsequent sugar seasons. The cane price announced by the GOI is decided on the basis of the recommendations of the Commission for Agricultural Costs and Prices (CACP) after consulting the State Governments and associations of sugar industry (Source: Department of Food and Public distribution, GOI).

MARKETING:

 # Sugar Marketing Policy

According to industry sources, the sugar industry will continue to be subject to production controls by state governments, including sugar industry licensing, cane area reservation, minimum distance criteria, adoption of the cane price formula, specified cane procurement areas for sugar mills, and cane pricing. On a side note, the sugar procurement for public distribution system (PDS) operation is being made from the open market by the state/Union Territories, and the Government is providing a fixed subsidy at INR 18.50 per kg for restricted coverage only to the Antyodaya Anna Yojana (AAY) families who will be provided 1 kg of sugar per family per month.

 # Ethanol Program

The ethanol blended program (EBP) seeks to achieve blending of ethanol with gasoline with a goal to reduce pollution, encourage value addition along the value chain, and improve cash flows, particularly with the goal to clear cane price arrears of farmers. Per the latest Post estimate, India's ethanol production in MY 2017/18 is likely 2.6 billion liters (from molasses), 50 percent above last year and the highest in the last decade. The previous record production was 2.4 billion liters in MY 2006/07. Assuming that there is a price incentive for selling ethanol, states with surplus will be encouraged to sell more ethanol for blending with gasoline. Likewise, potable consumption is also expected to rise in tandem, while imported ethanol (if competitive) will fill demand for industrial use. Theoretically, the ethanol available is sufficient to meet the 7 percent blend target, but viably will meet a 3.4 percent market penetration in MY 2017/18.

On November 2017, the Union Cabinet approved the revision in the price of ethanol under the Ethanol Blending (EBP) Program, for supply to the **public sector** oil marketing companies (OMCs) fixed at Rs.40.85/- per liter ($0.62/liter) for sugar season 2017-18. In addition, the Goods and Service Tax (GST) and transportation charges will also be charged. The revised price will be applicable during the ethanol supply period from December 1, 2017 to November 30, 2018. The approval will facilitate the continued policy of the government in providing price stability and remunerative prices for ethanol suppliers. It was intended to reduce dependency on crude oil imports, save in foreign exchange and benefit the environment (PIB Press release).
For background information on India's ethanol program, please refer to India's Biofuel Annual 2017 GAIN report IN7075.

Production, Supply and Demand Data Statistics:

Table 1. India: Centrifugal Sugar (Raw Value Basis), in Thousand Metric Tons

Sugar, Centrifugal	2016/2017		2017/2018		2018/2019	
Market Begin Year	Oct 2016		Oct 2017		Oct 2018	
India	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Beginning Stocks	9294	9294	6694	6570	0	11515
Beet Sugar	0	0	0	0	0	0

Production						
Cane Sugar Production	22200	22200	27740	32445	0	33830
Total Sugar Production	22200	22200	27740	32445	0	33830
Raw Imports	2499	2700	1500	1000	0	0
Refined Imp.(Raw Val)	1	1	0	0	0	0
Total Imports	2500	2701	1500	1000	0	0
Total Supply	33994	34195	35934	40015	0	45345
Raw Exports	0	0	0	300	0	3000
Refined Exp.(Raw Val)	1800	2125	1400	1700	0	3000
Total Exports	1800	2125	1400	2000	0	6000
Human Dom. Consumption	25500	25500	26500	26500	0	27500
Other Disappearance	0	0	0	0	0	0
Total Use	25500	25500	26500	26500	0	27500
Ending Stocks	6694	6570	8034	11515	0	11845
Total Distribution	33994	34195	35934	40015	0	45345

Note: Stocks include only milled sugar, as all *khandsari* sugar produced is consumed within the marketing year. Virtually no centrifugal sugar is utilized for alcohol, feed, or other non-human consumption.

Table 2. India: Sugarcane, Centrifugal, Area in Thousand Hectares and others in 000' Tons

Sugar Cane for Centrifugal	2016/2017		2017/2018		2018/2019	
Market Begin Year	Oct 2016		Oct 2017		Oct 2018	
India	USDA Official	New Post	USDA Official	New Post	USDA Official	**New Post**
Area Planted	4380	4564	5000	4950	0	5200
Area Harvested	4380	4564	5000	4950	0	5200
Production	306700	306069	357000	395000	0	415000

Total Supply	306700	306069	357000	395000	0	415000
Utilization for Sugar	190000	190000	238000	278000	0	290000
Utilization for Alcohol	116700	116069	119000	117000	0	125000
Total Utilization	306700	306069	357000	395000	0	415000

Note: Virtually no cane is utilized directly for alcohol production. ‘Utilization for alcohol’ in the PS&D includes cane used for *gur*, seed, feed and waste. ‘Utilization for sugar’ data includes cane used to produce mill sugar and *khandsari* sugar

Table 3. India: Sugarcane Area, Production, and Utilization

Sugar Cane	Area[1]	Yield[1]	Product[1]	Sugar[1]	Khandsari[2]	Gur[2]	Seed[2]
	Mha	MT/ha	MMT	MMT	MMT	MMT	MMT
1990/91	3.69	65.39	241.05	122.32	13.18	76.63	28.93
1995/96	4.15	68.02	282.09	174.76	10.00	67.27	30.06
2000/01	4.32	69.35	299.32	176.65	11.00	75.75	35.92
2001/02	4.41	67.09	295.95	180.32	10.50	69.62	35.51
2002/03	4.52	63.58	287.38	194.33	9.50	49.07	34.49
2003/04	3.94	59.39	233.86	132.51	10.00	63.29	28.06
2004/05	3.66	64.74	237.08	124.77	9.50	74.36	28.45
2005/06	4.20	66.93	281.17	188.67	8.50	50.26	33.74
2006/07	5.15	69.03	355.52	222.00	10.00	80.86	42.66
2007/08	5.06	68.81	348.18	249.91	7.00	49.49	41.78
2008/09	4.44	64.19	285.02	145.00	6.50	99.32	34.20
2009/10	4.18	70.01	292.30	185.55	6.50	65.17	35.08
2010/11	4.89	70.09	342.38	240.00	7.50	53.79	41.09
2011/12	5.08	71.07	361.03	257.00	7.00	53.70	43.32
2012/13	5.06	67.38	341.20	251.50	7.00	41.75	40.94
2013/14	5.01	70.26	352.14	234.32	8.00	67.56	42.25
2014/15	5.14	70.44	362.33	265.40	8.00	45.45	43.48
2015/16	4.96	70.25	348.45	238.00	8.50	60.13	41.81
2016/17	4.38	70.02	306.70	193.30	8.50	68.09	36.80
2017/18	4.95	79.80	395.00	278.00	9.00	60.60	47.40
2018/19	5.20	79.81	415.00	292.00	9.00	55.00	49.80

Note: Figures for 2017/18 and 2018/19 are FAS estimates.
Source: [1] Directorate of Economic and Statistics, Ministry of Agriculture
[2] FAS/New Delhi Estimate.

Table 4. India: Mill Sugar Production by State, in thousand metric tons, crystal weight basis

State / MY →	**2016/17**	**2017/18**	**2018/19**
	Revised	**Estimate**	**Forecast**
Andhra Pradesh	6.1	6.7	7.5
Bihar	5.5	5.0	5.3
Gujarat	11.2	12.0	13.0
Haryana	5.8	6.0	6.0

Karnataka	21.5	32.5	39.0
Maharashtra	42.0	106.0	110.0
Punjab	5.0	5.0	5.0
Tamil Nadu	10.0	6.8	6.0
Uttar Pradesh	87.0	110.0	112.0
Others	8.4	8.0	8.8
Total	202.50	298.00	312.50

Sources: MYs 2016/17 is industry and government estimate; MYs 2017/18 and 2018/19 are FAS/New Delhi Estimates.
Note: Excludes *khandsari* sugar, as state-wide breakout is not available.

Table 5. India: Commodity, Centrifugal Sugar, Price Table, (Prices in INR per MT)

Year	2016	2017	2018	Percent Change
January	31,750	39,400	35,410	10
February	33,500	39,700	35,550	10
March	36,200	38,400	33,940	12
April	36,300	39,000	31,900	18
May	36,350	39,700		
June	37,800	39,200		
July	39,000	39,910		
August	38,500	40,300		
September	39,100	40,360		
October	39,300	40,260		
November	38,000	39,450		
December	38,200	36,700		
Exchange Rates:	67.11	65.12	64.54	
	Local Currency INR/US $			

Note: Exchange rates for 2016, 2017 and 2018 refer to respective Marketing Years (October–September).
Source & Contract Terms: Indian Sugar Mills Association, NFCSF and Department of Consumer Affairs (GOI); month-end prices in the Delhi wholesale market.

Table 6. India: Commodity, Gur, Price Table, (Prices in INR per MT, actual weight basis)

Year	2016	2017	2018	Percent Change
January	29,000	32,000	30000	6.25
February	29,500	31,000	28320	8.65
March	30,750	32,000	27650	13.59
April	33,000	32,500	27350	15.85
May	33,500	35,500		
June	37,000	36,000		

July	41,000	37,500		
August	40,500	36,080		
September	40,500	36,980		
October	35,500	36,430		
November	31,500	32,580		
December	32,000	31,120		
Exchange Rate:	67.11	65.12	64.54	
	Local Currency INR/US $			

Note: Note: Exchange rates for 2016, 2017 and 2018 refer to respective Marketing Years (October–September).
Source & Contract Terms: Indian Sugar Mills Association, NFCSF and Department of Consumer Affairs (GOI); month-end prices in the Delhi wholesale market.

Table 7. India: Comparative Commodity Support Price Table, INR per MT, MSP or FRP

Marketing Year	2014/15	2015/16	2016/17	2017/18
Wheat	14,500	15,250	16,250	17,350
Rice (Grade A)	14,000	14,500	15,100	15,900
Sugarcane	2,200	2,300	2,300	2,550
State Advised Price (SAP) for Sugarcane, by State				
Uttar Pradesh	2,750-2,900	2,700-2900	3,000-3,150	3150-3250
Haryana/Punjab	2,800-3,100	2,950-3,500	3,100-3,200	2850-3300
Southern States[1]	2,200-2650	2,650-2,850	2,300-3,050	-

[1]: Sugar mills pay market price.
Source: Indian Sugar Mills Association
Note: Latest media reports indicate that the Commission for Agricultural Costs and Prices, GOI has recommended a FRP for sugar season 2018/19 at INR 275 per quintal at 9.5 percent recovery level subject to a premium of Rs 2.68 per quintal for every 0.1 percent point increase in the recovery rate.

Table 8. India: Import Trade Matrix, Centrifugal Sugar, MY 2016/17, In MT

Period	Raw Sugar ^	White Sugar	Total
October	443,329	126	443,455
November	235,107	91	235,198
December	244,467	126	244,593
January	313,941	176	314,117
February	88,631	52	88,683
March	158,580	86	158,666

April	80,500	45	80,545
May	80,651	40	80,691
June	343,873	214	344,087
July	307,105	0	307,105
August	111,428	94	111,522
September	272,679	49	272,728
Total	2,680,291	1,099	2,681,390

Source: Industry and trade source.
^: Estimated. Monthly break down data unavailable

Table 9. India: Export Trade Matrix, Centrifugal Sugar, MY 2016/17, In MT

Period	Raw Sugar	White Sugar	Total
October	2,807	229,773	232,580
November	5,713	161,186	166,899
December	1,256	233,413	234,669
January	1,389	197,974	199,363
February	2,783	168,614	171,397
March	1,110	179,235	180,345
April	1,194	160,074	161,268
May	954	138,936	139,890
June	4,709	145,892	150,601
July	7,537	161,322	168,859
August	23,261	127,285	150,546
September	848	169,161	170,009
Total	53,561	2,072,865	2,126,426

Source: Industry and Trade sources.
Monthly break down data unavailable