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GAIN Report

Global Agricultural Information Network

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India

Sugar Semi-annual

2018

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Report Highlights:

India's centrifugal sugar production in marketing year (MY) 2018/19 (October-September) is revised up to 35.9 million metric tons (MMT), 5 percent above last season due to expectation of a record national sugar recovery rate of 11.9 percent, which is 0.5 percent above the season ending September 2018. For the second year in a row Uttar Pradesh (UP) will be the largest producer of sugar in India, followed by Maharashtra and Karnataka. More productive short-duration canes will boost total sugarcane production to 423 MMT on 5.2 million hectares. India likely will export at least 2 MMT of sugar (mostly raw) in the MY 2018/19 (out-year). With more incentives and mandatory targets, total export sales may climb to 4 MMT.

Note: All sugar data in this report are on a raw value basis unless otherwise mentioned.

Commodities:

Sugar, Centrifugal
Sugar Cane for Centrifugal

Production:

Centrifugal Sugar Production in MY 2018/19 at 35.9 MMT, 5 Percent above Last Year

India's centrifugal sugar (henceforth sugar) production forecast for MY 2018/19 is revised up to 35.9 MMT, which is 6 percent above its previous estimate and 5 percent above the current year ending Sept 2018. The above production forecast includes 559,000 metric tons (MT) of *khandsari* (a local type of low-recovery sugar prepared by open-pan evaporation) and 33 MMT of milled sugar (35.3 MMT raw equivalent). The sugar recovery rate in out-year is expected to remain higher at 11.9 percent, approximately 0.5 percent above current year's estimate. If achieved, it will be the highest national average of the sucrose recovery rate achieved thus far.

A record sugar production for the second consecutive year from UP is driving the increase, while Maharashtra and Karnataka are likely to produce close to last year's levels. Sugar production in UP is expected to rise 17 percent (an additional volume of 2.1 MMT), which will offset any incremental decline from states which planted less cane or had lower yields on insufficient rainfall.

Despite surplus inventory, and pending arrears (in UP, 27 percent of outstanding payments for MY 2017/18 were due as of Sept 24, 2018), sugar mills in India will be motivated for timely crushing of canes in MY 2018/19. Incentives include: **1)** sugar prices are stable and generally favorable, a result of the government of India (GOI) recent actions (discussed below); **2)** attractive trade prospects for raw sugar; **3)** typical spikes in consumption during the festive season; and **4)** the upcoming General election in April/May 2019¹. Additionally, a fifth incentive is the high crude oil prices coupled with a very attractive purchase price (administered) for ethanol supply to the Oil Marketing Companies (OMCs) for blending with gasoline will definitely spur sales, increase revenues, and help mills settle cane payments with farmers.

Given the incentives for farmers to supply their canes to sugar mills, jaggery units will need to improve their terms of purchase to ensure adequate supplies, so farmers can expect better prices or more favorable payment terms from them. In turn, post expects cane supply to *gur* (jaggery or crude, non-centrifugal lump sugar) manufacturing units will rise above normal levels: the out-year *gur* production is expected to exceed 7 MMT, an 11 percent increase over last season. This forecast assumes normal weather and favorable market conditions for the upcoming season.

According to the latest production data, 34.1 MMT of sugar (620,000 MT of *khandsari* and 33.5 MMT of milled sugar raw value) will be produced in MY2017/18, roughly 1.7 MMT above the forecast made in April 2018. The increase resulted from increased production in UP and Karnataka as well as

¹ Particularly when there is growing clout of sugarcane farmers in two of the largest sugar producing states in India, namely UP and Maharashtra, which combined represent 23.5 percent of total seats in Lok Sabha (lower house of India's bicameral Parliament).

improved national sugar recovery rate (from 11.30 percent to 11.37 percent) and improved cane yield estimates (from 79.8 MT/ha to 83.4 MT/ha²).

Sugarcane Production in MY 2018/19 Revised Up From 415 MMT to 423 MMT on 5.2 million hectares (MH)

The latest [crop weather watch report](#) (dated Sept 14, 2018) indicates total sugarcane (cane) planting in the out-year at 5.2 million hectares, 4.2 percent above last year. Post's preliminary assessment is that after assuming cane yield of 81.3 metric tons/hectare (ha), total cane production in the out-year will be 423 MMT; 2.4 percent above last year and 8 MMT above the forecast in early April 2018. The yield projection will be India's second highest after the current year's record 83.4 metric tons/ha. Increased use of ratoon, root stubs which are cheaper to cultivate but less productive than new plantings, will weigh on cane yields but they likely will remain higher than the 5-year average of 75 MT/ha. A relatively larger share of high yielding, short-duration cane varieties, particularly in UP, and mid-late varieties in Maharashtra, are supporting higher than average yields. In addition, the prevailing weather conditions have been favorable (please see below).

The [fourth advance estimate 2017/18](#) from Ministry of Agriculture (MinAg) calculates cane production in MY 2017/18 at 376.9 MMT from an estimated 4.98 million hectares. However, Post estimates 413 MMT of cane from 4.98 million hectares based on higher than anticipated cane yield, which also is a record.

i) On the weather front: The 2018 monsoon rainfall from June 1 to Sept 26 is reported nine percent below normal, but only eastern and northeastern states are reporting precipitation deficits (-24 percent), and those states have low or negligible share of the country's cane production. (Source: Indian Meteorological Department). Except for dry weather reported from the northern central area of Karnataka, Gujarat, Bihar, Jharkhand, and Marathwada, normal precipitation is reported for most major growing regions through Sept 20, 2018. More importantly, as of Sept 13, 2018, water levels in major reservoirs in Andhra Pradesh & Telangana, Karnataka, Tamil Nadu (Southern region), UP (Central region) and Maharashtra (Western India) are reported better than last year and above the 10 year average. Recent weather reports of late withdrawal of the monsoon from northwestern India, as well as reports of sporadic to heavy rainfall during the second half of September for the southern peninsula and eastern states, should relieve some soil moisture stress and boost the winter planting.

ii) The Fair and Remunerative Price (FRP) for MY 2018/19 Raised 8 Percent to INR 275/quintal (1 qtl=100 kg): The GOI approved the FRP of sugarcane for sugar season (MY) 2018-19 at INR 275 per quintal for a basic recovery rate of 10 percent; this provides a premium of INR 2.75/qrtl for each 0.1 percent increase in recovery over and above 10 percent (the cost of production of sugarcane for the sugar season 2018-19 is INR 155 per quintal). The FRP is determined on the basis of recommendations of Commission for Agricultural Costs and Prices (CACP) and after consultation with State Governments and other stake-holders³.

² Comparison between estimates made in April 2018 and September 2018

³ Recommended FRP accounts for various factors such as: cost of production, overall demand-supply situation, domestic and international prices, inter-crop price parity, terms of trade prices of primary by-products, and likely impact of FRP on general price level and resource use efficiency.

iii) Cane Arrears: Through the end of May, combined cane price arrears were INR 145.38 billion (\$2.16 billion) on FRP basis and INR 232.32 billion (\$3.4 billion) on State Advised Price (SAP) basis. These have come down to INR 81.53 billion (\$1.2 billion) and INR 166 billion (\$2.4 billion), respectively, as of July 27, 2018.

Consumption:

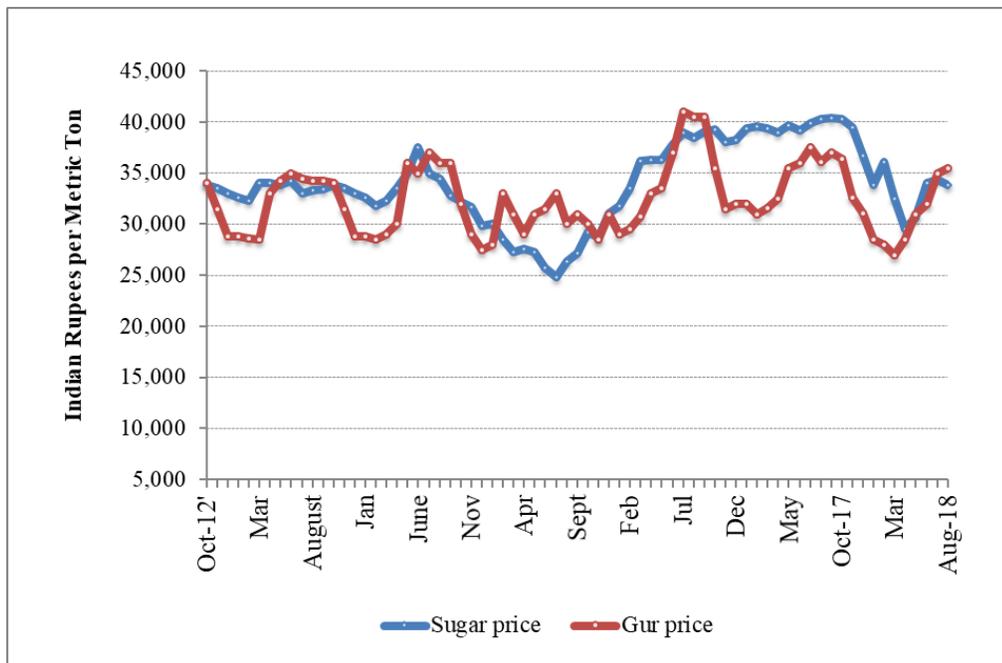
The current year and out-year sugar consumption forecast remain unchanged at 26.5 MMT and 27.5 MMT, respectively (Table 1). Demand from bulk users and institutions particularly during the festive months will remain strong. Growth in income and population will continue to support consumption growth. Also, there is a growing consumer perception towards eating healthier food (less oil and sugar) which may pose a downside risk, but not till mid-term.

Market Prices

Sugar prices rose 11.4 percent in the last 5 months (until September 2018). This indicated improving market movements in an otherwise surplus situation. Just before the uptick, sugar prices had turned soft in response to higher than anticipated sugar production. It happened during the period from October 2017 to May 2018 when sugar prices dropped 25 percent. As a result, in June 2018, the GOI came out with a host of measures that helped prevent sugar prices from falling further; at the same time the GOI supported sale of sugar byproducts (such as ethanol) to improve cash flows, settle cane arrears, and to make ethanol available for ethanol blending program (EBP). Strong demand for ethanol will support sugar prices and keep sugar mills in business. Until mid-Sept, Indian sugar was quoted at more than a 30 percent premium over international sugar prices.

Generally, *gur* prices move in tandem with sugar prices. Until last month *gur* was selling at a premium of \$25 per MT over sugar (quoted at \$466 per MT). In fact, *gur* prices too have risen 25 percent in the last four months in response to timely market interventions (Figure 2). Post expects *gur* prices to continue to mirror domestic and international price movements.

Figure1. India: Sugar and Gur Prices in Delhi Market



Source: Industry and Trade sources

Recent GOI Interventions to Support the Sugar Industry:

- In May 2018, the Department of Food and Public Distribution (DFPD), GOI initiated a subsidy to offset high cane cost at INR 5.5/quintal (for MY 2017/18). This subsidy will be paid directly to farmers on behalf of the mills and be adjusted against the cane dues payable by the mills to the farmers, including arrears. Subsequent balances, if any, would get credited into the mill's account.
- On June 6, 2018, the Cabinet Committee on Economic Affairs (CCEA) approved creation of 3 MMT of annual sugar buffer stock starting July 1, 2018 but the buffer stock is subject to revision depending on prevailing prices and availability. In this case, instead of buying sugar from mills, the government will finance the cost of storage at mill-owned warehouses. The reimbursement under the scheme will be made on a quarterly basis and will be credited directly into farmers' account on behalf of mills against their cane payments due.
- The minimum selling price of white or refined sugar has been (initially) fixed at INR 29/kg and is fixed based on the FRP of cane and minimum conversion cost of white/refined sugar. This however is subject to revision by the DFPD, GOI ([Sugar Price Control Order 2018](#), [Gazette Price Control Order](#)). Industry representatives expect INR 33/kg to INR 35 per kg to meet the rising cost of production. Further, to augment ethanol capacity the GOI has dedicated separate funds for the same (More on [PIB Press Release June 2018](#)).
- The sugar control order for September 2018 defines the maximum quantity of sugar that can be held by mills, excluding the quantity meant for domestic and export sales ([stock holding limit Sept 2018](#)).

- Amid surging crude oil prices, the GOI further raised the ethanol price to spur increased blending of ethanol with gasoline. This measure improved cash flows of mills so that they can settle their arrears, which in turn supports sugar prices, and helps increase farmers income. On Sept 12, CCEA approved an ex-mill price of INR 52.43 per liter for ethanol derived from B heavy molasses and partial sugarcane juice (that is an increase from the existing price of INR 47.13 per liter); and to INR 59.13 per liter for ethanol derived from 100 percent sugarcane juice (up from existing price of INR 47.13 per liter). Lastly, the ex-mill price for ethanol produced from C-molasses is revised upto INR 43.70 per liter (from existing price of INR 40.85 per liter). Another measure introduced to enhance ethanol production in India is financial assistance to sugar mills in the form of soft loans.
- On Sept 26, the CCEA approved measures involving total assistance of over INR 55 billion to support the sugar sector; the measures included subsidizing or offsetting the cost of cane to facilitate exports of sugar under the Minimum Indicative Export Quota (MIEQ) for MY 2018/19 and to improve cash flow of the millers so they may make timely payments and clear arrears with farmers cane accounts. The measures include financial assistance to sugar mills at the rate of INR 13.88 per quintal of cane crushed in sugar season MY 2018-19. Support for export sales include subsidizing the cost of transporting and handling at the rate of INR 1000/MT, INR 2500/MT and INR 3000/MT, depending on distance from the port ([PIB Press release](#)).

Trade:

Sugar Trade

India should be able to export at least 2 MMT of sugar in the out-year. Export sales mostly will be of raw sugar as Indian white sugar will be overpriced in the international market. Any decline in export prospects from major suppliers (e.g., Brazil) could mean an equivalent benefit for Indian sugar sales only if they stand competitive with supplies from other origin (e.g., Thailand, Australia). However, with more incentives and mandatory targets, industry sources indicate that total export sales may climb by another 2 MMT. In such case, India should be able to sell upwards of 4 MMT of sugar in MY 2018/19⁴. Imports are likely to be negligible unless it is obligated under the Advance Authorization Scheme (AAS).

Post estimates that sugar exports in MY 2017/18 will be close to 1.8 MMT of which an estimated 1.1 MMT will be sugar re-exported under the AAS; the remaining 700,000 MT will be commercial sales under MIEQ. Concurrently, sugar imports in MY 2017/18 are estimated at 1.3 MMT, which is mostly under the AAS and is confirmed per import trade data from Oct 2017 to May 2018. Trade data also tells us that India mostly imports sugar from Brazil, but has been importing smaller quantities from Denmark, Pakistan, Germany, Italy, and UK. As for exports, Sri Lanka, Jordan, Myanmar, Sudan, Somalia, UAE, Djibouti, Kenya, Saudi Arabia, and Nepal are important buyers of Indian sugar.

Trade Policy

The [MIEQ](#) for MY 2017/18 scheme was extended by [3 months](#) to December 2018. In May 2018, under MIEQ, the GOI had notified 2 MMT would be mandatory exports of sugar (raw/white/refined) through

⁴ The probability of it reaching 4 MMT is however low as international sugar prices will continue to remain under pressure. Future direction of trade will depend on movement of international sugar prices and prevailing trade dynamics.

September 2018 (the amount was to be fairly allotted amongst sugar mills). With less than half a million metric tons of sugar exported under this scheme, extending the timeline creates an opportunity to sell additional sugar, which is most likely to be raw sugar (not white/refined). Note that all sugar exports under MIEQ are over and above the exports made under the AAS, Duty Free Import Authorization (([DFIA](#))) scheme, and any other export scheme announced by GOI.

The DFPD, GOI has recently notified allocation of sugar-factory wise [MIEQ](#) for MY 2018/19 under tradable export scrip program. *Currently, the official link to the above announcement is not active.*

Stocks:

After considering export sales and domestic consumption, the out-year sugar stock would be at record 18 MMT, almost equal to 8-month consumption requirement and 30 percent above end-stocks for year ending September 2018. The average stock-to-use ratio in the last 10 years was just 34 percent. The end stocks for MY 2017/18 and MY 2018/19 include **buffer stocks** of 3 MMT which is technically not available for sale⁵. Another 1 MMT of sugar may get displaced to produce additional 600 million liters of ethanol (made from B-heavy molasses/juice) and reduce out-year stock by an equivalent amount, if not allocated for additional buffer requirement

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	6570	6569	11515	13728

⁵ Post assumes that the buffer stock requirement post June 2019 may be extended through Sept 2019 given mounting surplus production

Beet Sugar Production	0	0	0	0	0	0
Cane Sugar Production	22200	22200	32445	34110	33830	35870
Total Sugar Production	22200	22200	32445	34110	33830	35870
Raw Imports	2700	2700	1000	1333	0	0
Refined Imp.(Raw Val)	1	0	0	16	0	0
Total Imports	2701	2700	1000	1349	0	0
Total Supply	34195	34194	40015	42028	45345	49598
Raw Exports	0	0	300	200	3000	2000
Refined Exp.(Raw Val)	2125	2125	1700	1600	3000	2000
Total Exports	2125	2125	2000	1800	6000	4000
Human Dom. Consumption	25500	25500	26500	26500	27500	27500
Other Disappearance	0	0	0	0	0	0
Total Use	25500	25500	26500	26500	27500	27500
Ending Stocks	6570	6569	11515	13728*	11845	18098*
Total Distribution	34195	34194	40015	42028	45345	49598

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.

*: Includes 3 MMT of Buffer Sugar Stock but is unavailable for sale, thereby cutting total supply short by an equivalent amount. End stock for 2019 may get trimmed further by 1 MMT if it's diverted to produce ethanol, leaving 14099 MMT as remaining stock.

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	4564	4564	4950	4980	5200	5200
Area Harvested	4564	4564	4950	4980	5200	5200
Production	306069	306069	395000	413000	415000	423000
Total Supply	306069	306069	395000	413000	415000	423000
Utilization for Sugar	190000	190000	278000	290000	290000	293000
Utilization for Alcohol	116069	116069	117000	123000	125000	130000
Total Utilization	306069	306069	395000	4135000	415000	423000

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	83.43	413.00	290.00	10.00	63.44	49.56
2018/19	5.20	81.35	423.00	293.00	9.00	70.24	50.76

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
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	Revised	Estimate	Forecast
Andhra Pradesh	6.1	7.5	7.5
Bihar	5.5	6.4	5.2
Gujarat	11.2	11.5	12.1
Haryana	5.8	4.4	4.5
Karnataka	21.5	35.7	34.7
Maharashtra	42.0	107.1	106.0
Punjab	5.0	6.7	5.0
Tamil Nadu	10.0	6.3	6.0
Uttar Pradesh	87.0	119.8	140.4
Others	8.4	7.6	11.7
Total	202.50	313.01	333.01

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	33,800	14
February	33,500	39,700	36,100	09
March	36,200	38,400	32,500	15
April	36,300	39,000	29,500	24
May	36,350	39,700	30,700	23
June	37,800	39,200	34,000	13
July	39,000	39,910	34,400	14
August	38,500	40,300	33,800	16
September	39,100	40,360	34,200	15
October	39,300	40,260		
November	38,000	39,450		
December	38,200	36,700		
Exchange Rates:	67.11	65.12	67.12	
	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	28,500	10.94

February	29,500	31,000	28,000	09.68
March	30,750	32,000	27,000	15.63
April	33,000	32,500	28,500	12.31
May	33,500	35,500	31,000	12.68
June	37,000	36,000	32,000	11.11
July	41,000	37,500	35,000	06.67
August	40,500	36,080	35,500	01.61
September	40,500	36,980	37,020	0.11
October	35,500	36,430		
November	31,500	32,580		
December	32,000	31,120		
Exchange Rate:	67.11	65.12	67.12	
	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.