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**Report Highlights:**

Indian centrifugal sugar production in market year (MY) 2022/2023 (October-September) is forecast to decline three percent to 35.8 million metric tons (MMT), equivalent to 33.4 MMT of crystal white sugar after a record production of 36.8 MMT (equivalent to 34.4 MMT of crystal white sugar) in MY 2021/2022. Likewise, exports in MY 2022/2023 are estimated to decline 41 percent to 5.2 MMT, a conspicuous departure toward normal trade volumes after record exports of 8.7 MMT (equivalent to 8.5 MMT of crystal white sugar) in MY 2021/2022, following global supply shortfalls and competitive prices. Sugar consumption in MY 2022/2023 is expected to grow two percent to 29.5 MMT backed by burgeoning institutional and consumer demand.

## PRODUCTION, SUPPLY AND DISTRIBUTION

**Table 1. India: Centrifugal Sugar (Raw Value Basis) (Thousand Metric Tons - TMT)**

Sugar, Centrifugal	2020/2021		2021/2022		2022/2023	
Market Begin Year	Oct-2020		Oct-2021		Oct-2022	
India	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Beginning Stocks	14614	14614	14174	14155	0	14255
Beet Sugar Production	0	0	0	0	0	0
Cane Sugar Production	33760	33760	34700	36880	0	35800
Total Sugar Production	33760	33760	34700	36880	0	35800
Raw Imports	1000	1243	1000	1000	0	1000
Refined Imports (Raw Value)	0	0	0	0	0	0
Total Imports	1000	1243	1000	1000	0	1000
Total Supply	49374	49617	49874	52035	0	51055
Raw Exports	1000	3450	1000	4500	0	3600
Refined Exports (Raw Value)	6200	4012	6000	4280	0	1605
Total Exports	7200	7462	7000	8780	0	5205
Domestic Consumption	28000	28000	28500	29000	0	29500
Other Disappearance	0	0	0	0	0	0
Total Use	28000	28000	28500	29000	0	29500
Ending Stocks	14174	14155	14374	14255	0	16350
Total Distribution	49374	49617	49874	52035	0	51055

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.

All figures in raw value. To convert raw value to refined/crystal white sugar, divide by a factor of 1.07.

Source: FAS New Delhi historical data series. Forecast for 2022/2023; 2020/2021 and 2021/2022 are estimates.

**Table 2. India: Sugarcane, Centrifugal, Area in Thousand Hectares and Others, TMT**

Sugarcane for Centrifugal	2020/2021		2021/2022		2022/2023	
Market Begin Year	Oct-2020		Oct-2021		Oct-2022	
India	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Planted	5290	5290	5600	5400	0	5500
Area Harvested	5290	5290	5600	5400	0	5500
Production	403000	403000	412000	416000	0	418000
Total Supply	403000	403000	412000	416000	0	418000
Utilization for Sugar	310000	310000	312000	340000	0	330000
Utilization for Alcohol	93000	93000	100000	76000	0	88000
Total Utilization	403000	403000	412000	416000	0	418000

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

Source: FAS New Delhi historical data series. Forecast for 2022/2023; 2020/2021 and 2021/2022 are estimates.

## PRODUCTION

FAS New Delhi (Post) forecasts India's centrifugal sugar production at 36.8 million metric tons (MMT) raw value in market year (MY) 2022/2023 (October-September). This is equivalent to 33.4 MMT of crystal white sugar,<sup>1</sup> including 500,000 metric tons (MT) of *khandsari*.<sup>2</sup> Production is forecast three percent below the current season based on assumptions of a normal monsoon, adequate reservoir levels and fertilizer availability.

Despite an increase in sugarcane planted area to 5.5 million hectares (Mha), a normal monsoon will likely correct yields downward, as opposed to buoyant production demonstrated in the current season (Table 2). In the event of a strong monsoon, production could increase by 0.5-1.2 million metric tons.

Post revises its current MY 2021/2022 production estimate upwards to 36.8 MMT, or 34 MMT of crystal white sugar, including 500,000 MT of *khandsari* (Table 1). This adjustment is due to improved sugarcane yields in the Indian states of Maharashtra and Karnataka, due to better-than-expected rainfall received in October through December 2021. According to Post sources, sugar cane yields in both states have ranged between 100-130 MT/hectare (ha) against average conventional yields of 90 MT/hectare.

Sugar recovery rates for both states are estimated to be higher by one percent (Table 3). In addition, production increases in Maharashtra and Karnataka more than compensates yield declines witnessed in Uttar Pradesh. Pest infestations (red rot disease), water logging in eastern Uttar Pradesh, varietal conversions toward new varieties aimed at maintaining a varietal balance, have led to yield declines in the state. The Indian Sugar Mills Association (ISMA) cites the increase in the number of operating mills in the current marketing year as another reason behind higher production. Approximately 518 sugar mills were operational in MY 2021/2022, compared to 505 mills the previous year (Figure 1).

**Table 3. India: Milled Sugar Production by State, MMT, crystal weight basis**

State	2020/2021	2021/2022	2022/2023
	Revised	Estimate	Forecast
Andhra Pradesh	0.5	0.5	0.5
Bihar	0.7	0.7	0.6
Gujarat	1	1.2	1
Haryana	0.6	0.5	0.5
Karnataka	4.3	6	4.7
Maharashtra	10.6	12.8	12.2
Punjab	0.6	0.4	0.5
Tamil Nadu	0.8	0.8	0.9
Uttar Pradesh	11.1	10.3	11.3
Others	0.8	0.8	0.8
<b>Total</b>	<b>31</b>	<b>34</b>	<b>33</b>

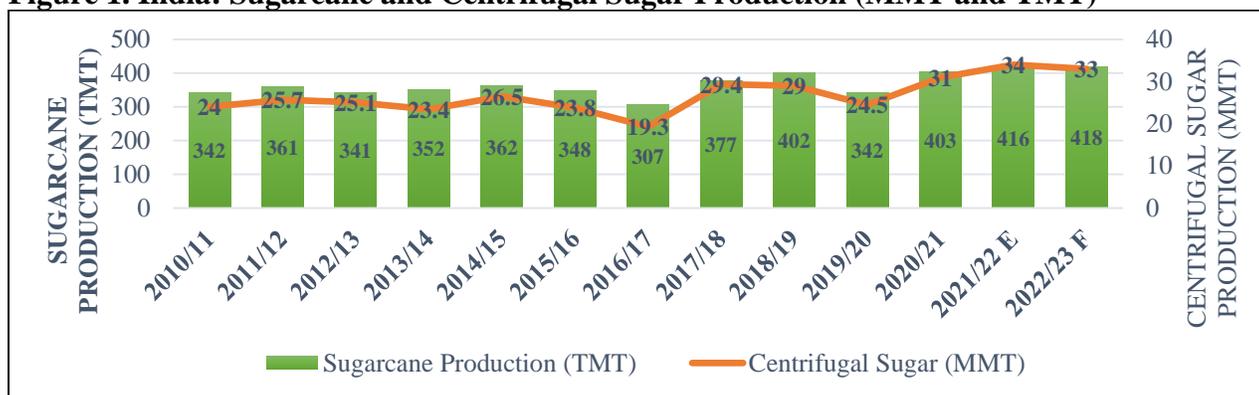
Note: Value excludes *khandsari* sugar, as state-wise breakout is not available

Source: FAS New Delhi historical data series. Post forecast for 2022/2023; 2020/2021 and 2021/2022 are estimates.

<sup>1</sup> Sugar polarization factor: to convert raw value to refined/crystal white sugar, divide by a factor of 1.07.

<sup>2</sup> *Khandsari* is a local type of low-recovery sugar prepared by open-pan evaporation.

**Figure 1. India: Sugarcane and Centrifugal Sugar Production (MMT and TMT)**



Note: Production forecast for 2022/23; 2020/21 and 2021/22 are estimates.

Source: FAS New Delhi historical data series.

Over the years, India has emerged as a structural surplus producer of sugar and will continue to take advantage of the economic benefits gained from the dedicated supply of cane juice/B-heavy molasses for fuel ethanol production.

India’s Ethanol Blended Program (EBP) continues to provide sugar mills with an incentive to divert excess sugar for fuel ethanol production. The states of Uttar Pradesh, Maharashtra, and Karnataka will especially benefit from India’s EBP, which will improve sugar mill cash flows and help with arrears settlement (overdue debts). According to industry estimates, India will likely divert 5.0 MMT sugar equivalent toward the EBP program in the forecast year to attempt to achieve its 2022 E-10 blend target, compared to 3.5 MMT in the current year.

### FAIR AND REMUNERATIVE PRICE

On August 25, 2021, the Cabinet Committee on Economic Affairs (CCEA) approved an increase in the Fair and Remunerative Price (FRP) for sugarcane in MY 2021/2022 by Indian rupees (INR) 50 to INR 290 per quintal (\$3.83/quintal) based on a ten percent recovery rate.<sup>3</sup> This is the highest price offered by the Indian government to date and is almost 87 percent above the cost of production (Table 4).

The Commission for Agricultural Costs and Prices determines the FRP based on recommendations from, and after consultations with the state governments and other stakeholders.<sup>4</sup> According to the government, the sugarcane production cost per quintal is INR 155 (\$2.05/quintal). A premium of INR 2.90/quintal for each 0.1 percent increase in recovery over and above ten percent is offered (see, [Press Information Bureau, August 25, 2021](#)). If the recovery is less than 9.5 percent, farmers are paid INR 275/quintal (\$3.65/quintal) for sugarcane compared to the previous INR 270.75/quintal offering.

<sup>3</sup> One quintal equals 100 kilograms. For purposes of this report, \$1.00 equals INR 75.25.

<sup>4</sup> The recommended FRP accounts for various factors such as production costs, overall demand-supply situation, domestic and international prices, intercrop price parity, trade price terms of primary by-products, and the likely impact of FRP on general price levels and resource-use efficiency.

On September 10, 2021, the state advised price (SAP) for sugarcane in the state of Punjab for MY 2021/2022 increased from INR 310/quintal (\$4.11/quintal) to INR 360/quintal (\$4.78/quintal). At the same time, the state of Haryana's SAP was increased from INR 350/quintal (\$4.65/quintal) to INR 362/quintal (\$4.81/quintal). Similarly, on September 27, 2021, the Uttar Pradesh government revised its MY 2021/2022 sugarcane SAP with early maturing cane varieties to INR 350/quintal (\$4.65/quintal), with common varieties being set at INR 340/quintal (\$4.51/quintal).

**Table 4. India: Comparative Commodity Support Price Table, INR/MT, Wheat, and Rice Minimum Support Price against Maximum Retail Price (Sugar)**

Marketing Year	2017/2018	2018/2019	2019/2020	2020/2021	2021/2022
Wheat	17,350	18,400	19,250	19,750	20,150
Rice (Grade A)	15,900	17,700	18,350	18,880	19,600
Sugarcane	2,550	2,750	2,750	2,850	2,900
<b>State Advised Price (SAP) for Sugarcane, by State</b>					
Uttar Pradesh	3,150-3,250	3,150-3,250	3,150-3,250	3,150-3,250	3,400-3,500
Haryana/Punjab	2,850-3,300	2,950-3,100	3,100-3,400	3,100-3,500	3,600-3,620
Southern States	2,300	2,750	2,750	2,850	2,900

Note: For certain southern states, sugar mills pay the FRP.

Source: Commission for Agricultural Costs and Prices (CACP), Government of India.

## CANE ARREARS

As of December 2021, India's cumulative arrears (debt) stood at \$687.4 million (INR 51.9 billion), almost 73 percent below the cumulative debt burden of \$2.58 billion in March 2021.<sup>5</sup> This drop was attributed to multiple state elections slated in the first half of 2022 (Table 5).

The Indian government typically facilitates payments in a no-lien bank account, usually in a public/cooperative bank operated by respective sugar mills. The banks credit the amount owed to farmers on behalf of the sugar mills against payable cane dues and any remaining balance is credited back to the sugar mills' account.

**Table 5. India: Outstanding Cane Arrears (INR crore) by State**

States	2016-17	2017-18	2018-19	2019-20	2020-21	Total	% Share
Uttar Pradesh	22	20	0	0	3752	3794	73%
Maharashtra	0	27	81	0	394	502	10%
Uttarakhand	0	75	105	0	52	232	4%
Tamil Nadu	17	60	73	0	25	175	3%
Andhra Pradesh	0	0	37	43	37	117	2%
Bihar	0	0	50	39	4	93	2%
Others	26	3	19	48	181	277	5%
<b>Total Arrears</b>	<b>65</b>	<b>185</b>	<b>365</b>	<b>130</b>	<b>4445</b>	<b>5190</b>	

Note: Data as of December 2021. One crore (Indian unit of measurement) equals ten million.

Source: Ministry of Consumer Affairs, Food and Public Distribution.

<sup>5</sup> One crore equals 10 million.

## CONSUMPTION

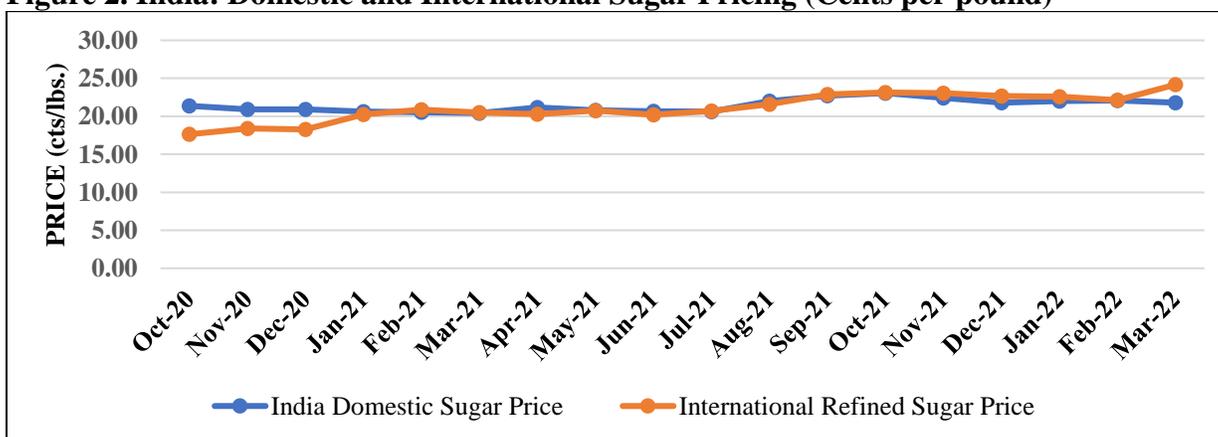
Out-year sugar consumption is forecast at 29.5 MMT, two percent above the current year estimate and equivalent to 27.5 MMT of crystal white sugar. In addition, Post revises its current year estimate to 29.0 MMT (27.1 MMT of crystal white sugar), reflecting industry and market sentiments which indicate higher domestic offtakes by institutional users, with strong consumer demand for processed foods.

In the current market year, consumer product demand has largely revived with strong consumption of ice cream, bakery, confectionary, *mithai* (Indian sweets), and processed food and beverage products, all which utilize sugar as a key ingredient. The hotel-restaurant-institutional sector is seeing increased commerce following the lifting of COVID-19 movement restrictions. India's largely unorganized catering segment, which is among its heaviest sugar consumption points, has also recovered with thanks to the uptick in weddings, catering, and events. Expectations of a strong festive season and continuing favorable demand prospects will propel retail and institutional sugar demand in the forecast year.

## MARKET PRICES

At the onset of MY 2021/2022, average international raw sugar prices reached 19.24 cents per pound (cts./lbs.), approximately one percent over September 2021 prices. The average price for refined sugar in October 2021 was quoted at \$505/MT. Since the beginning of the market year, March 2022 international raw sugar prices have dropped five percent to 18.22 cts/lbs., with international refined sugar prices down two percent to \$493/MT in the same period. This price drop suggests that the global sugar market remains largely insulated from the Russian invasion of Ukraine. However, rising crude oil prices and a relatively tighter global deficit will likely have an indirect impact and keep price sentiments bullish.<sup>6</sup> That is, over the next few months.<sup>7</sup> Typically, lower crude oil prices encourage millers to divert more cane toward sugar as opposed to ethanol.

**Figure 2. India: Domestic and International Sugar Pricing (Cents per pound)**



Note: International prices via Contract No. 5, London Daily Price, for world white (refined) sugar, free-on-board (FOB) Europe. Indian prices are ex-Delhi (month-end wholesale price).

Source: USDA ERS, Intercontinental Exchange, and the India Department of Consumer Affairs.

<sup>6</sup> This is despite a higher estimated production in India and Thailand, offsetting production losses in Brazil.

<sup>7</sup> Source: Reuters; [Global sugar deficit to fall to 1.1 mln T \(sic\) on rising Indian output-broker](#). Published March 9, 2022.

By comparison, Indian sugar prices have largely traded lower than prevailing international prices during MY 2021/2022, making Indian exports competitive without export subsidies (Figure 2). Average sugar prices in MY 2020/2021 in the Delhi wholesale market reached INR \$468/MT or 35,253/MT (Table 6). *Gur* (i.e., jaggery) prices averaged \$431/MT or INR 32,471/MT) for the same period (Table 7).

**Table 6. India: Commodity, Centrifugal Sugar, Price Table (INR/MT)**

Year	2020	2021	2022	Percent Change
January	35,350	34,540	36,800	7
February	34,800	34,400	37,000	8
March	34,500	34,200	36,500	7
April	34,500	35,400	-	-
May	33,700	34,800	-	-
June	35,200	34,600	-	-
July	35,200	34,500	-	-
August	35,600	36,800	-	-
September	35,000	38,000	-	-
October	35,800	38,600	-	-
November	35,000	37,500	-	-
December	35,000	36,500	-	-
Exchange Rates	74.13	74.0	75.25	
	Local Currency INR/\$USD			

**Table 7. India: Commodity, *Gur*, Price Table (INR/MT)**

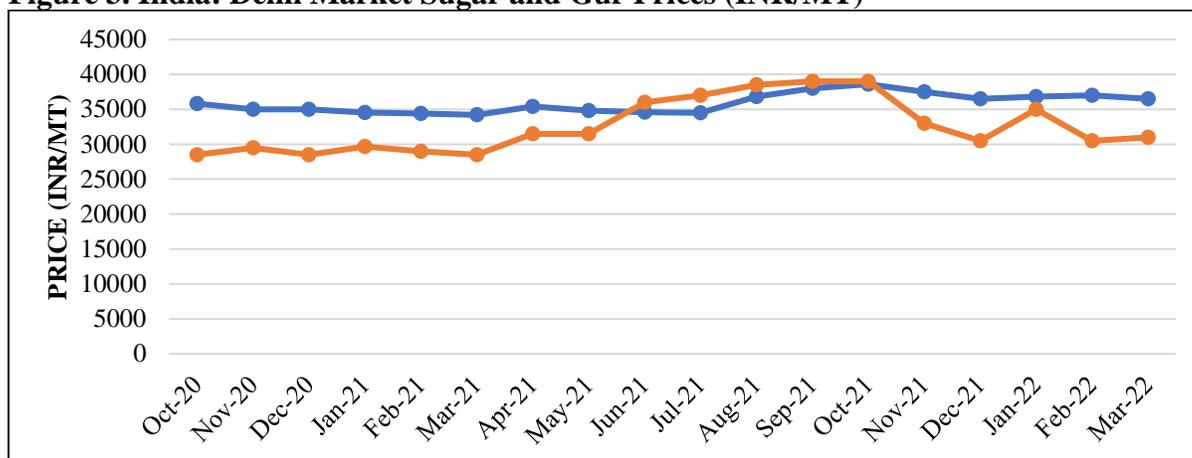
Year	2020	2021	2022	Percent Change
January	36,500	29,650	35,000	18
February	31,500	29,000	30,500	5
March	32,000	28,500	31,000	9
April	32,000	31,500	-	-
May	32,500	34,000	-	-
June	38,000	36,000	-	-
July	39,500	37,000	-	-
August	38,500	38,500	-	-
September	38,500	39,000	-	-
October	28,500	39,000	-	-
November	29,500	33,000	-	-
December	28,500	30,500	-	-
Exchange Rates	74.13	74.0	75.25	
	Local Currency INR/US \$			

Note for Tables 6 and 7, the 2019 and 2020 exchange rates refer to the marketing years.

Source and Contract Terms: ISMA, National Federation of Cooperative Sugar Factories (NFCSF), and Department of Consumer Affairs. Average monthly prices basis: Delhi wholesale market.

Generally, *gur* prices moves in tandem with cane sugar prices. These move at either a premium or discount in response to domestic and international price movements (Figure 3).

**Figure 3. India: Delhi Market Sugar and Gur Prices (INR/MT)**



Data Source: ISMA, NFCSF, and Department of Consumer Affairs, Government of India.

## TRADE

**Table 8. India: Trade Matrix (In Metric Tons)**

Type	MY 2019/2020		MY 2020/21		MY 2021/2022*	
	Imports	Exports	Imports	Exports	Imports	Exports
Raw Sugar	1,450,675	2,638,366	1,242,887	3,435,898	75,000	2,843,405
White Sugar	0	3,084,095	0	2,992,534	0	1,633,371
Domestic Port Refineries	-	331,105	-	762,526	-	776,552
<b>Total</b>	<b>1,450,675</b>	<b>6,053,566</b>	<b>1,242,887</b>	<b>7,190,958</b>	<b>75,000</b>	<b>5,253,328</b>

Note: Numbers for MY 2021/22 as of March 18, 2022. Domestic port refineries imply exports via the Advanced Authorization Scheme Sugar Polarization Factors. For refined cane sugar, multiply by 1.07 to convert to Metric Ton Raw Value basis.

Source: FAS New Delhi historical data, research and industry sources.

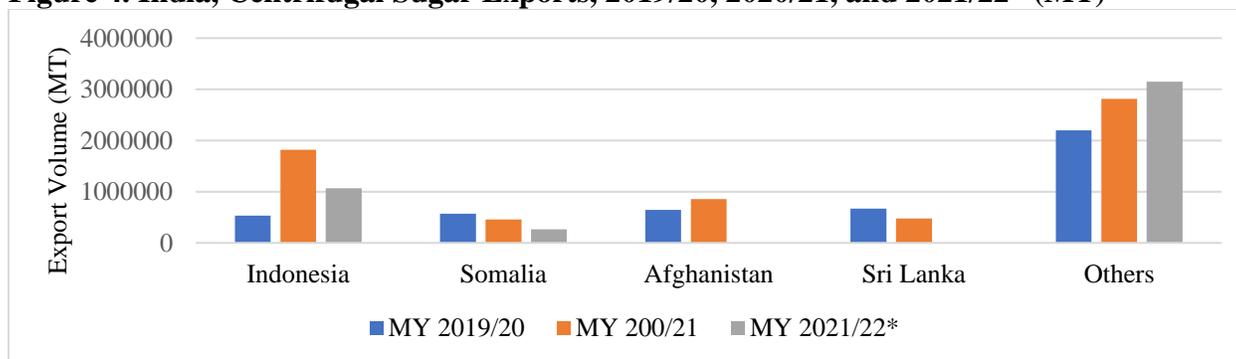
Assuming normal market conditions, competitive prices, and availability of an exportable surplus, India is forecast to export 5.2 MMT of sugar in MY 2022/2023. Total exports are estimated to include approximately 700,000 MT of sugar re-exported under the Advance Authorization Scheme (AAS) (see, [Directorate General of Foreign Trade](#)), and the remaining balance through commercial sales.<sup>8</sup>

For MY 2021/2022, Post revises India's sugar exports to 8.78 MMT (or 8.5 MMT crystal white sugar), reflecting current market realities. Competitive prices, production shortfalls in Brazil, and the Russian invasion of Ukraine will keep demand steady, with Indian exporters capitalizing on this opportunity. According to industry sources, as of April 2022, India has contracted 7.2 MMT in new sugar exports against realized sales of approximately 5.25 MMT (or 5.62 MMT raw value) from March 18, 2022 (Table 8). The United States has also now issued its MY 2021/2022 raw sugar tariff rate quota (TRQ) allocation of 8,424 MT (raw value) to India.

<sup>8</sup> Under the AAS, raw sugar is imported in the country and re-exported post refinement. Sugar volumes imported under the AAS cannot be sold in the domestic market and must be re-exported.

Post is adjusting the MY 2020/2021 trade mix between raw and white sugar to reflect actual market realities. India’s cumulative export value remains unchanged at 7.2 MMT (or 7.46 MMT raw value). Indonesia (49 percent), the United Arab Emirates (12 percent) Bangladesh (11 percent), and Saudi Arabia (7 percent) remain the top destinations of Indian raw sugar. Afghanistan (30 percent), Somalia (16 percent), and Sri Lanka (12 percent) were the top destinations for Indian centrifugal white sugar. Indian exports through the AAS went to various African nations. In the current market year, Indian exports will continue flowing to traditional Asian and African destinations (Figure 4).

**Figure 4. India, Centrifugal Sugar Exports, 2019/20, 2020/21, and 2021/22\* (MT)**



Note: Numbers for MY 2021/2022 are as of March 18, 2022.  
 Source: FAS New Delhi office research and industry sources.

Imports are likely to be negligible and remain level at approximately 1 MMT as domestic supply will exceed requirements for both consumption and stocks.<sup>9</sup> Market year 2020/2021 imports have been revised upward to 1.2 million metric tons. Most of India’s sugar imports fall under the import authorization scheme and are taken in by Indian port-based sugar refineries to refine the product and then re-export it under the AAS.

## TRADE POLICY

The Indian government discontinued its sugar export subsidies for MY 2021/2022 provided under the Maximum Admissible Export Quota (MAEQ) program. The former scheme had subsidized sugar exports up to 6 million metric tons. Notably, India exported approximately 7.2 MMT of sugar in MY 2020/2021, with 1.2 MMT shipped without the export subsidy.

On December 14, 2021, the World Trade Organization (WTO) released its findings from the dispute panel initiated in August 2019 against India’s alleged trade distorting sugar subsidies. The report found that India’s subsidies violated obligations under the multilateral agreement (see, [GAIN-INDIA – IN2021-0147 – WTO Rules Against India’s Sugar Export Subsidies and Domestic Price Support](#)). The Indian government’s Ministry of Commerce and Industry rejected the ruling and appealed the decision.<sup>10</sup>

<sup>9</sup> An exception involves the Duty-Free Import Authorization (DFIA) scheme. Under the DFIA, exporters may import sugar duty-free after meeting an export obligation. In contrast, the AAS allows local sugar millers or exporters to import raw sugar duty-free against a future export commitment.

<sup>10</sup> See: WTO, [India appeals panel reports in disputes targeting Indian sugar subsidies](#).

On January 26, 2022, the Brazilian government issued a measure allowing retaliatory measures against countries that are parties in stalled trade disputes with Brazil at the WTO, which includes India. In 2021, the WTO panel ruled in favor of Brazil regarding its sugar subsidies case, but India appealed the decision to the non-operational appellate body, indefinitely postponing its obligation to comply with the ruling. The Brazilian government believes that the measure's announcement will be enough to motivate India to resume trade discussions on these disputes.

## **STOCKS**

Post estimates India's sugar ending stocks in MY 2022/2023 at 16.3 MMT (equivalent to 15.2 MMT of crystal white sugar), almost 15 percent above the current year estimate. This figure excludes approximately 5 MMT of sugar (equivalent) diverted toward ethanol blending. Ending stocks will represent approximately seven months of supply using average consumption levels, exceeding the normal two-to-three months of reserve stocks.

## **POLICY**

### **Sugarcane Production Policy**

To increase both yield and sugar recovery rates, the Indian government supports research, development, training of farmers, promotion of new varieties, and improved production technologies, including seeds, machinery, and pest management methods. The Indian Council of Agricultural Research conducts sugarcane research and development at the national level. At the regional and state levels, agricultural universities, regional research institutions, and agricultural extension agencies support sugarcane growers in various capacities. Various state governments also support sugarcane growers through their own promotion policies.

### **Sugar Development Fund**

Established in 1982, the Sugar Development Fund (SDF) finances loans to sugar mills to facilitate the rehabilitation and modernization of existing production equipment and methods. Loans support bagasse-based co-generation power projects, production of anhydrous alcohol or ethanol from alcohol, and conversion of existing ethanol plants into zero liquid discharge plants. The loans are provided at a concessional rate of two percent below the prevailing national bank rate. The fund has various functions and is used to finance costs associated with sugar buffer stocks and internal transport and freight charges for exports. Additionally, the SDF is applied in concessional loan terms to sugar factories that support schemes approved by the central government, as well as marketing, promotion services for raw cane production, and loans for sugar mills that expedite payments to cane farmers.

The Sugar Development Fund rules were amended to facilitate SDF loan restructuring due to natural calamities and address potentially viable, but distressed sugar undertakings. As of November 30, 2021, some 61 cooperative societies (160 loan accounts) have active SDF loans, of which 30 societies (85 loan accounts) are solvent, and 31 societies (75 loan accounts) are in default. To date, in Indian Fiscal Year (IFY) 2021/2022, approximately \$52 million (INR 3.85 billion) has been allocated to sugar mills under different schemes within the SDF to expand storage capacity (Table 9).

**Table 9. Indian Government Budgetary Allocations to Sugar Industry (INR crore)**

Allocation	2021/2022	2021/2022		2022/2023	% Change
	Realized Outlays	Initial	Revised	Initial	
Sugar Subsidy payable under Public Distribution System	203	220	250	350	40
Scheme defraying expenditures on transport and marketing of sugar exports, including handling and processing	301	2,000	3,503	-	(100)
Scheme for assistance to sugar mills for 2019/20 season	3,900	1,000	2,150	-	(100)
Scheme for creation and maintenance of buffer sugar stocks	600	650	765	-	(100)
Financial assistance to sugar mills for enhancement and augmentation of ethanol production capacity	150	300	160	300	88
Schemes for development of sugar industries	175	187	143	85	(41)
Scheme for extending soft loan to sugar mills	418	-	-	-	-

Note: Percent change depicted for 2022/2023 with initial estimate over 2021/2022 revised estimate. One crore equals ten million.

Source: Department of Food and Public Distribution.

## Sugar Marketing Policy

Post sources report that the sugar industry remains under tight production controls by state governments, which include sugar industry licensing, cane land reservation, minimum distance criteria, cane price formula adoption, specified cane procurement areas for sugar mills, and overall cane pricing.

Sugar procurement for the public distribution system (PDS) occurs on the open market by state governments/union territories at the central government subsidy level of INR 18.5/kg (\$0.24/kg) for the *Antyodaya Anna Yojana* (Uplifting the Poorest Food Plan), a program established in 2000 to provide sustenance to food insecure families. Families are limited to one kilogram of sugar every month.

Indian states and union territories may continue to subsidize expenditures on transportation, handling, and commissions above the retail price of INR 13.5/kg to beneficiaries. The Indian government allocated \$46.5 million (INR 3.5 billion) for sugar subsidies payable under the PDS system for IFY 2022/2023, an increase of almost 40 percent over the subsidy allocation (\$33.2 million or INR 2.5 billion) last year.<sup>11</sup>

<sup>11</sup> Source: [DFPD Budget Allocations](#).

## Ethanol Blending Program

India's Ethanol Blending Program (EBP) seeks to blend sugar-based ethanol with gasoline. The purpose of which is to curb pollution, reduce India's oil import bill, integrate the sugar and ethanol value-chains, reduce cane arrears, and limit surplus sugar stocks. Consistent with the 2018 National Biofuel Policy, the Indian government advanced its 20 percent blending with gasoline (E-20) target by five years from 2030 to 2025. The 10 percent (E-10) target ethanol blending rate in gasoline by 2022 remains in place. India's blending rate for MY 2020/2021 reached 8.1 percent.

On November 10, 2021, the Cabinet Committee for Economic Affairs (CCEA) notified its revised ethanol prices for fuel blending for ethanol supply year 2021/2022 (December 1, 2021-November 30, 2022). These prices establish the procurement mechanism under the EBP by government-owned oil marketing companies (OMC). The following prices are approved for the upcoming ethanol season:

- a) Ethanol derived from C-heavy molasses at INR 46.66/liter (\$0.63/liter), two percent increase over the price offered the previous supply year.
- b) Ethanol derived from B-heavy molasses at INR 59.08/liter (\$0.79/liter), three percent increase over the price offered last supply year.
- c) Ethanol derived from sugarcane juice, sugar/sugar syrup at INR 63.45/liter (\$0.85/liter), a one percent increase over the price offered last supply year.

These prices are exclusive of the Goods and Service Tax and transportation charges. Furthermore, with a vision to facilitate establishing domestic advanced biofuel refineries, the Indian government provided the OMCs the authority to determine the pricing for grain-based feedstocks, such as rice, wheat straw, corn cobs, stover/bagasse, and woody biomass for second generation ethanol.

**Table 10. Year-on-Year Ethanol Procurement Prices (INR/Liter)**

Feedstock	Indian Ethanol Supply Year (December-November)						
	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22
C-heavy molasses	42	39	40.85	43.46	43.75	45.69	46.66
B-heavy molasses	0	0	0	52.43	54.27	57.61	59.08
Sugarcane juice/Sugar Syrup/Sugar	0	0	0	59.19	59.48	62.65	63.45
Damaged Food Grains	0	0	0	47.13	50.36	51.55	51.55
Surplus Rice issued by FCI	0	0	0	0	0	56.87	56.87
Corn	0	0	0	0	0	51.55	51.55

Source: Ministry of Petroleum and Natural Gas, Government of India.

### Attachments:

No Attachments