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## **Report Name:** Sugar Annual

**Country:** India

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**Report Category:** Sugar

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### **Report Highlights:**

India's centrifugal sugar production in marketing year (MY) 2023/2024 (October-September) is forecast to reach 36 million metric tons (MMT), equivalent to 33.6 MMT of crystal white sugar. Current year sugar production is lowered to 32 MMT, as adverse weather conditions in Maharashtra during the vegetative-growth stage led to a significant drop in cane yields following consecutive seasons of record yields. India's sugar exports in MY 2023/2024 are estimated to rise slightly to 7 MMT as the Indian government will likely maintain tight export controls to prevent any domestic shortages or price fluctuations during the national election year. Sugar consumption in the outyear is expected to continue its upward trajectory and reach 31 MMT as India's ethanol and potable alcohol industries support growing demand of sugarcane and derivatives.

## PRODUCTION, SUPPLY AND DISTRIBUTION

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

Sugar, Centrifugal	2021/2022		2022/2023		2023/2024	
Market Year Begins	Oct 2021		Oct 2022		Oct 2023	
India	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Beginning Stocks (1000 MT)	13213	13213	9439	9506	0	6506
Beet Sugar Production (1000 MT)	0	0	0	0	0	0
Cane Sugar Production (1000 MT)	36880	36880	35800	32000	0	36000
Total Sugar Production (1000 MT)	36880	36880	35800	32000	0	36000
Raw Imports (1000 MT)	76	340	1000	1000	0	1000
Refined Imports (Raw Val) (1000 MT)	0	0	0	0	0	0
Total Imports (1000 MT)	76	340	1000	1000	0	1000
Total Supply (1000 MT)	50169	50433	46239	42506	0	43506
Raw Exports (1000 MT)	5760	5779	4610	3200	0	3300
Refined Exports (Raw Val) (1000 MT)	5970	6148	4780	3300	0	3700
Total Exports (1000 MT)	11730	11927	9390	6500	0	7000
Human Dom. Consumption (1000 MT)	29000	29000	29000	29500	0	31000
Other Disappearance (1000 MT)	0	0	0	0	0	0
Total Use (1000 MT)	29000	29000	29000	29500	0	31000
Ending Stocks (1000 MT)	9439	9506	7849	6506	0	5506
Total Distribution (1000 MT)	50169	50433	46239	42506	0	43506

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. Forecast for 2021/2022; market years 2022/2023 and 2023/2024 are estimates.

Source: FAS New Delhi historical data series.

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

Sugar Cane for Centrifugal	2021/2022		2022/2023		2023/2024	
Market Year Begins	Oct 2021		Oct 2022		Oct 2023	
India	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Planted (1000 HA)	5400	5400	5500	5500	0	5600
Area Harvested (1000 HA)	5400	5400	5500	5500	0	5600
Production (1000 MT)	416000	416000	418000	413000	0	417500
Total Supply (1000 MT)	416000	416000	418000	415000	0	417500
Utilization for Sugar (1000 MT)	340000	340000	330000	328000	0	335000
Utilization for Alcohol (1000 MT)	76000	76000	88000	85000	0	82500
Total Utilization (1000 MT)	416000	416000	418000	415000	0	417500

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. Forecast for 2021/2022; market years 2022/2023 and 2023/2024 are estimates.

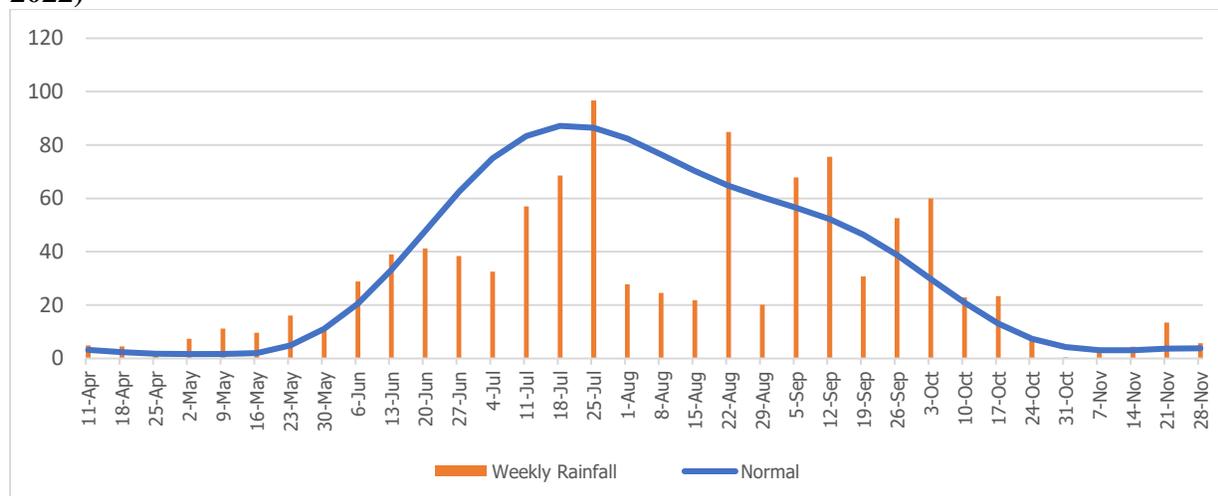
Source: FAS New Delhi historical data series.

## PRODUCTION

FAS New Delhi (Post) forecasts India’s sugarcane planted area for MY 2023/2024 to slightly increase to 5.6 million hectares and production to rebound to 36 MMT following the significant decline in cane production in MY 2022/2023. Despite the increased potential in greater adverse weather conditions from the El Niño weather phenomenon, the Indian government’s market price supports and augmented diversion of sugar to both ethanol and potable alcohol production will ensure sugarcane remains as the most remunerative crop for farmers.

Post revises India’s sugarcane production estimate for MY 2022/23 to 413 MMT (Figure 1), with a national average sugar recovery rate of approximately 10 percent. Uttar Pradesh, Maharashtra, and Karnataka, states which constitute almost 80 percent of India’s total sugar production, are expected to have lower average recovery rates due to poor climatic conditions resulting in reduced cane sucrose levels and an early harvest. In Maharashtra, irregular, weak rainfall patterns began in June 2022 during the early growth stages, led to poor vegetative and low sucrose yields (Figure 1) and continued through 2022.

**Figure 1. India, State of Maharashtra Weekly Rainfall Against Normal (April-November 2022)**



**Data Source:** USAF 557<sup>th</sup> Weather Wing, USDA Global Agricultural and Disaster Assessment System.

**Note:** Weekly Rainfall Precipitation measures weekly precipitation records against the 30-year year normal for the indicated period.

India’s sugarcane planted area for the forecast year remains unchanged from the previous estimate of 5.5 million hectares, which is two percent above MY 2021/2022. Post sources indicate that sugarcane area harvested is slightly less in Maharashtra due to early season rainfall, but the acreage figure is corrected by increased production in Uttar Pradesh.

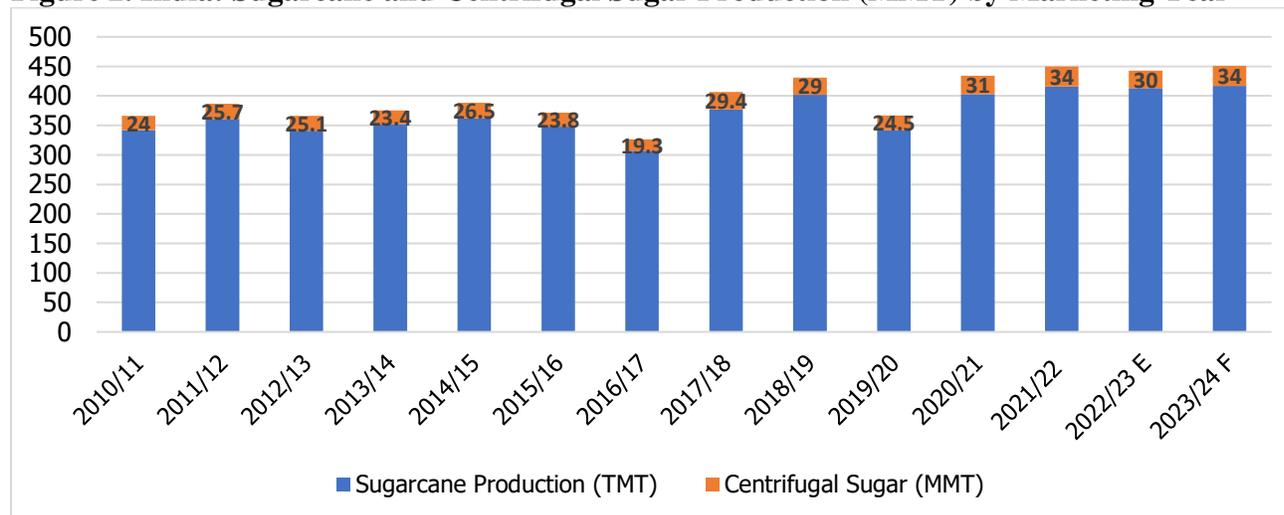
Post lowers MY 2022/2023 centrifugal sugar production to 32 MMT (raw value basis), equivalent to 30 MMT of crystal sugar,<sup>1</sup> a 13 percent drop from the previous market year. The production estimate includes 600,000 metric tons (MT) of *khandsari*.<sup>2</sup>

<sup>1</sup> Sugar polarization factors: 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.

Following record sugarcane production in MY 2021/2022, elevated temperatures and lower rainfall in Maharashtra led to greater crop stress, stalk shrinkage and subsequent lower yields in the current market year. This production drop led to the early closure of most sugar mills, which completed operations two months sooner than normal.<sup>3</sup> With the drop in Maharashtra production, Uttar Pradesh has become India’s largest sugar producer.

**Figure 2. India: Sugarcane and Centrifugal Sugar Production (MMT) by Marketing Year**



**Sources:** FAS New Delhi research. MY 2022/23 E\* is estimated, MY 2023/24\*F indicates forecast.

According to the Ministry of Agriculture and Farmers Welfare, India’s total sugar production for MY 2022/2023 is estimated to reach 468.8 MMT, approximately seven percent higher from the previous year and in contrast to Post’s current year estimate which (See: [Ministry of Agriculture and Farmers Welfare](#)).

### Fair and Remunerative Price

On August 3, 2022, the Cabinet Committee on Economic Affairs updated its Fair and Remunerative Price (FRP) for sugarcane for MY 2022/2023, increasing it from INR 290 per quintal (\$3.54/quintal) to a new high of INR 305 per quintal (USD \$3.72/quintal), based on a revised 10.25 percent sugar recovery rate.<sup>4</sup> Additionally, growers are awarded a premium of INR 3.05/quintal for every 0.1 percent gain in recovery over and above the 10.25 percent rate. The current price is 88 percent above the cost of production, and the highest rate so far.<sup>5</sup> In contrast to the previous INR 275.5/quintal (\$3.36/quintal) offer, growers are now paid INR 282.13/quintal (\$3.44/quintal) where sugar recovery is less than 9.5 percent.

<sup>3</sup> Approximately 400 mills had closed as of April 15, compared to 300 mills in the same period a year ago. Source: “ISMA trims sugar output estimate to 32.8 mt.” [Hindu Business Line](#); published April 25, 2023.

<sup>4</sup> One quintal equals 100 kilograms. For purposes of this report, USD \$1.00 equals INR 82.00.

<sup>5</sup> Source: Government of India, Press Information Bureau; Release ID: [1847997](#).

## State Advised Pricing

Presently, the state governments of Punjab, Uttar Pradesh, and Haryana utilize a State Advised Price (SAP) for sugarcane, which is typically above the Fair and Remunerative Price. Uttar Pradesh has kept the SAP unchanged at INR 350/quintal (\$4.27/quintal) for standard sugarcane varieties (Table 3). Stakeholders in Uttar Pradesh are advocating for a higher SAP owing to adverse weather conditions and elevated consumer inflation, resulting in limited financial capacity and economic losses.<sup>6</sup>

In January 2023, Haryana's SAP increased from INR 362/quintal (\$4.41/quintal) to INR 372/quintal (\$4.54/quintal). Previously, on October 3, 2022, Punjab increased its MY 2022/2023 SAP by INR 20 to INR 380/quintal (\$4.63/quintal), an INR 75/quintal (\$0.92/quintal) difference compared to the Fair and Remunerative Price.<sup>7</sup>

To date, Karnataka has not increased the SAP for MY 2022/2023, which remains unchanged at INR 290/quintal (\$3.53/quintal). Since 2019, the SAP for the state has not substantially changed. Farmers this year are advocating for an increase due to elevated production and post-harvest costs.<sup>8</sup>

**Table 3. India: Comparative Commodity Support Price Table, INR/MT, Wheat, and Rice Minimum Support Price against Sugarcane SAP and FRP**

Marketing Year	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
Wheat	17,350	18,400	19,250	19,750	20,150	<b>21,250</b>
Rice (Grade A)	15,900	17,700	18,350	18,880	19,600	<b>20,600</b>
Sugarcane	2,550	2,750	2,750	2,850	2,900	<b>3,050</b>
<b>State Advised Price 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	<b>3,400- 3,500</b>
Haryana/Punjab	2,850- 3,300	2,950- 3,100	3,100- 3,400	3,100- 3,500	3,600- 3,620	<b>3,720- 3,800*</b>
Southern States	2,300	2,750	2,750	2,850	2,900	<b>2,900</b>

Note: For certain southern states, sugar mills pay the FRP; Tamil Nadu abolished its previously utilized SAP in 2018.

\*Price revised since previous Sugar Semi-annual report; [IN2022-0084](#).

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

## Cane Arrears

According to the Department of Food and Public Distribution, India's cumulative arrears (debt) as of March 15, 2023, stood at \$2.1 billion (INR 171.1 billion), 190 percent higher than the debt burden of \$726.3 million (INR 59.1 billion), observed on September 30, 2022.<sup>9</sup> Cane arrears differ by states, the number of functional mills, and the average sugar recovery rate. As of

<sup>6</sup> Source: "Farmers slam UP govt's status quo on sugarcane price for 2022-23 season." [Business Standard](#); published February 15, 2023.

<sup>7</sup> "...but [the] gap between fair price and state-advised rates is still huge." [Times of India](#); published January 26, 2023.

<sup>8</sup>Source: "Karnataka sugarcane farmers protest seeking higher price." [Business Line](#); published October 27, 2022

<sup>9</sup> Source: [Ministry of Food and Public Distribution](#)

February 2023, Uttar Pradesh cane arrears stood at \$1.2 billion (INR 91.5 billion), a figure which includes outstanding debts from the previous market year.<sup>10</sup>

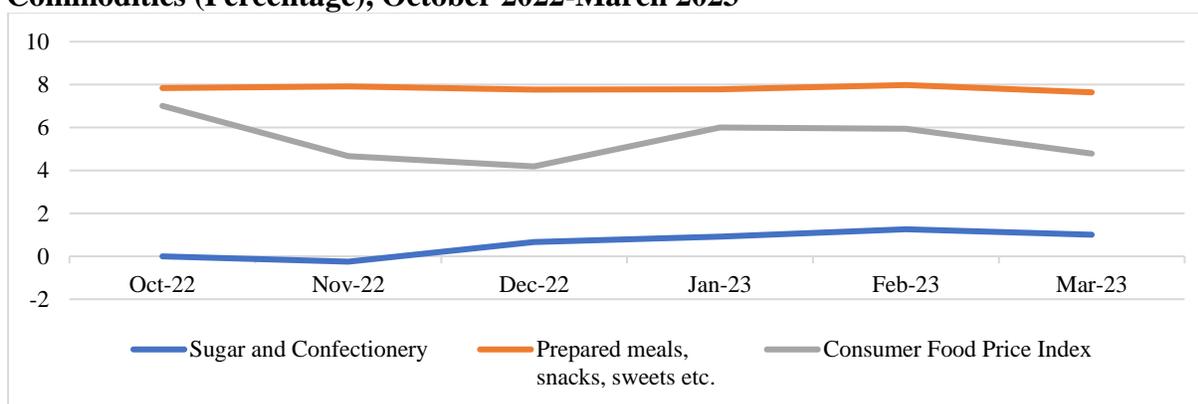
## Consumption

Outyear sugar consumption is forecast at 31 MMT (equivalent to 29 MMT of crystal white sugar), almost five percent above the current year estimate of 29.5 MMT on account of increased demand from bulk buyers and processed food manufacturers. More than 30 percent of sugar is directly consumed in Indian households, and the remaining portion is used for producing confectionaries, beverages, and ready-to-eat foods.

Following the COVID-19 pandemic, the demand for sweeteners has increased due to a significant rise in the domestic consumer base with discretionary incomes and spending on processed foods and beverages. Typically, sugar production increases during the summer months and any heat waves could further drive sugar demand, especially when supplies are constrained. The urban consumer demand for customized nutritional sugars like *khandsari* and *gur* is increasing due to the perceived health benefits. *Gur* is widely used in rural households due to its wide availability and affordability and *khandsari* for Indian sweets (*mithai*). Since July 2022, India’s Goods and Services Tax (GST) subjects *khandsari* and *gur* to a 5 percent tax.

In the near term, sugar availability will be highly dependent on domestic stocks levels and the volume of sugar and derivatives diverted to ethanol and alcoholic beverage production. Elevated consumer demand combined with lower sugar output has led to a surge in local prices. Beginning last year, processed food price inflation has remained consistent at 8 percent and above the Consumer Food Price Index, as compared to refined sugar prices that have remained mostly unchanged (Figure 2). Higher sugar prices may drive increased food price inflation through the remainder of the market year.

**Figure 2. India: Consumer Price Index and Year-on-Year Inflation Rates on Select Commodities (Percentage), October 2022-March 2023**



**Note:** Data label included for *Consumer Food Price Index*. Inflation rate data calculated as the average of rural and urban markets and are calculated by on the provisional data month over same month of the previous year (base year 2012).

**Data source:** Ministry of Statistics and Program Implementation, Government of India.

<sup>10</sup>Source: “UP sugar mills owe cane farmers over Rs 9,000 crore.” [Times of India](#); published February 12, 2023.

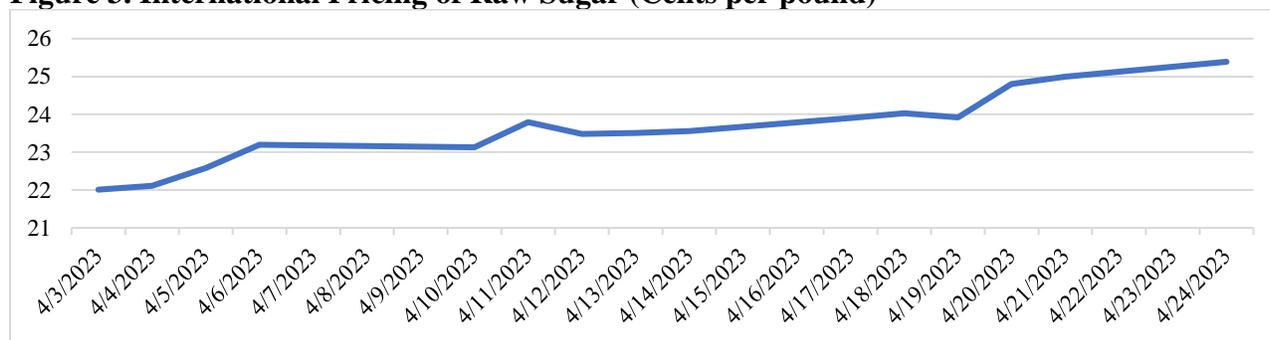
## Market Price

India's MY 2022/2023 sugar production decline has affected global market sentiments. India is among the largest exporters of raw sugar in the global market, and the downward production of Indian raw sugar led to a price spike in the international sugar market. On this note, the average international price of raw sugar reached an 11-year high at 25.39 cents/pound on April 24, 2023 (Figure 3), as compared to 17.18 cents/pound in September 2022.<sup>11</sup> Similarly, in April 2023, the FAO Sugar Price Index increased for the second time in consecutive months by 1.8 points (1.5 percent) to 127 points, the highest increase since 2016. This increase indicates lower global sugar stock availability in the 2022/2023 season because of dwindling productivity forecasts in India and other markets.<sup>12</sup>

On April 25, 2023, India's average domestic market price of sugar across all grades totaled INR 3,490/quintal (\$43/quintal, or \$430/MT), compared to INR 3,467/quintal (\$42/quintal, or \$420/MT) last market year. Post estimates that lower domestic stocks combined with elevated diversion of sugar to ethanol and alcoholic beverages will drive prices higher in the near-term, barring government interventions (Figure 4).

In reaction to changes in domestic and global prices, *gur* prices often fluctuate along with sugar prices, sometimes at a markup and sometimes at a lower rate. The average *gur* price for April 2022/2023 reached INR 3,550/quintal (\$43.40/quintal).

**Figure 3. International Pricing of Raw Sugar (Cents per pound)**

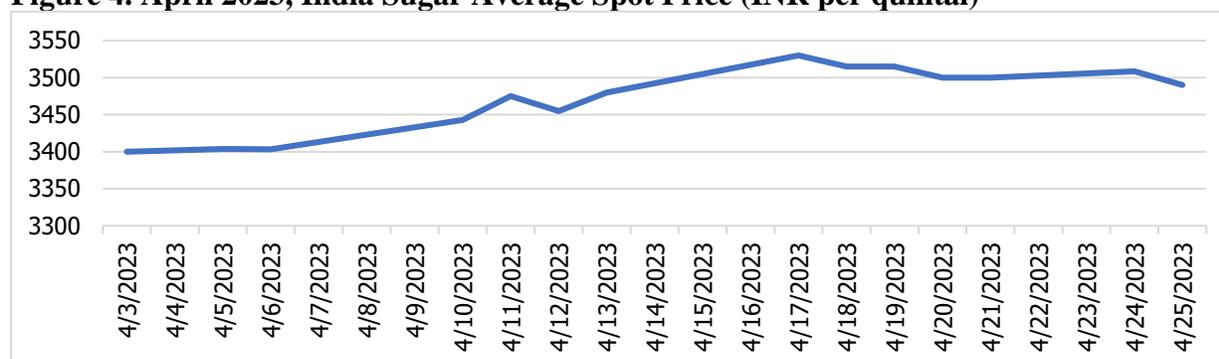


Data source: [International Sugar Organization](#)

<sup>11</sup> Other contributing factors to increased international sugar prices have included reduced sugar beet production in Europe, and lower sugarcane output in Thailand.

<sup>12</sup> Source: FAO World Food Situation, "[FAO Sugar Price Index](#)." Published on April 7, 2023.

**Figure 4. April 2023, India Sugar Average Spot Price (INR per quintal)**



Data source: National Commodity and Derivatives Exchange Limited; [Spot Market Sugar Price](#).

## Trade

For market year 2023/2024, Post estimates India’s sugar exports to reach 7 MMT, accounting for high domestic demand and the likelihood that the Indian government maintains export caps to control inflation. To manage trade, the Ministry of Commerce and Industry has retained sugar under its restricted category for MY 2022-2023.<sup>13</sup> It is likely that the government would retain a narrow export quota next sugar season, dependent on sugarcane yield outcomes.

For the current sugar season, the Ministry of Food and Public Distribution placed an export cap of 6 million metric tons. Post sources indicate that as of April 2023, most of the quota has been filled, and the government will be unlikely to permit additional sales beyond its current cap to ensure adequate stock levels throughout the remainder of the year.<sup>14</sup> Concurrently, India’s MY 2022/2023 sugar export estimate is dropped to 6.5 MMT, accounting for current market trends and reduced crush. Total exports include approximately 3 MMT of raw sugar and 3.3 MMT of refined white sugar. In addition, Post maintains the previous 700,000 MT estimate of sugar re-exported through the Advance Authorization Scheme (AAS).<sup>15</sup>

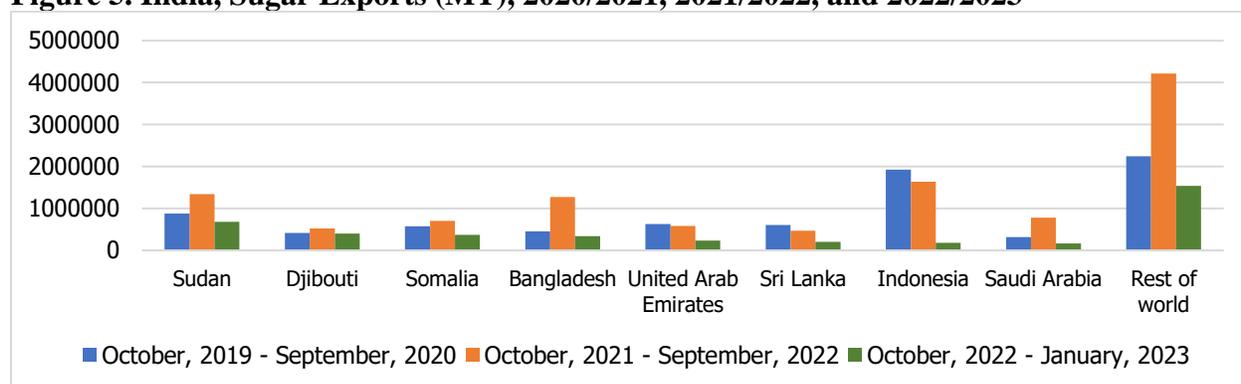
For market year 2021/2022, Indonesia was the largest importer of Indian sugar, followed by Sudan and Bangladesh (Figure 5). Post is adjusting the current trade mix between raw and refined sugar to reflect reduced domestic sugar production and available stocks. Indonesia (25 percent share), Bangladesh (19 percent), and Saudi Arabia (9 percent) were the largest importers of Indian raw sugar for MY 2021/2022. For refined sugar, Sudan (23 percent), Somalia (10 percent), and Djibouti (8 percent) were the top destinations last market year.

<sup>13</sup> With sugar under the “restricted” category, exports are only granted through permission from the Ministry of Consumer Affairs.

<sup>14</sup> Source: [Department of Food and Public Distribution](#)

<sup>15</sup> Imported raw sugar through the AAS is re-exported post refinement. The products cannot be sold in the domestic market.

**Figure 5. India, Sugar Exports (MT), 2020/2021, 2021/2022, and 2022/2023\***



**Source:** Trade Data Monitor.

**Note:** October 2022-January 2023 for MY 2022/2023\* data. HS codes include raw sugar; 170111, 170112, 170113, 170114; and refined sugar HS codes 170191 and 170199.

The United States has issued its MY 2022/2023 raw sugar tariff rate quota (TRQ) allocations and provided an allowance of 10,966 MT (raw value) to India.<sup>16</sup>

Out year sugar imports are forecast to remain flat at approximately 1.0 MMT. On February 6, 2018, the Indian government elevated its raw sugar import duty from 50 to 100 percent to protect Indian farmer interests and stabilize domestic prices.<sup>17</sup> Most of India's sugar imports fall under the Advance Authorization Scheme (AAS) (see, [Directorate General of Foreign Trade](#)), and the balance through commercial sales. Under the AAS, Indian refiners import raw sugar to port-based sugar refineries to process the product for reexport.

## Stocks

FAS New Delhi has revised India's MY 2022/2023 sugar ending stocks lower to 6.5 MMT, a 30 percent drop from the previous MY to account for market realities. This estimate accounts for lower opening stocks, greater sugarcane diversion toward ethanol, and lower production in MY 2023/2023. Owing to increased sugarcane demand for ethanol and domestic consumption, outyear ending stocks are forecast downward to 5.5 MMT. Ending stocks typically represent approximately seven months of supply using average consumption levels.

## Policy

### Sugar Development Fund

The Indian government's Sugar Development Fund (SDF) uses a loan mechanism to enhance sugar cane production, including financial assistance to sugar mills to facilitate renovation and advancement, cane varietal development, and bagasse-based combination power initiatives, among other programs. Presently, SDF loans are offered at two percent lower than the standard bank rate.

<sup>16</sup> India's original quota totaled 8,606 MT and was reallocated an additional 2,360 MT following consultations with quota holders. See: [88 FR 15852](#).

<sup>17</sup> Source: [Department of Food and Public Distribution](#).

In Indian Fiscal Year (IFY) 2023/2024, approximately \$9.5 million (INR 779 million) has been allocated to the sugar industry under different schemes for financial assistance, including mill distillery renovations for producing ethanol.<sup>18</sup> The budgetary allocation to sugar mills for ethanol production increased by 54 percent in IFY 2023/2024, compared to IFY 2022/2023 (Table 4).

**Table 4. Indian Government Budgetary Allocations to Sugar Industry (INR crore)**

Allocation	2021/2022	2022/2023		2023/2024	% Change
	Realized Outlays	Initial Budget	Revised Budget	Budget	
Scheme for creation and maintenance of buffer sugar stocks	96.04	0	3	0	(100)
Scheme for extending financial assistance to sugar mills for enhancement and augmentation of ethanol production capacity	160	300	259.83	400	54
Scheme for aiding sugar mills for expenses on marketing costs including handling, upgrading and other processing costs, etc.	3477.62	0	20.5	0	(100)
Schemes for development of sugar industries	143.1	84.81	77.7	10	87.2
Scheme for assistance to sugar mills for 2018-19 season	122.18	0	1.5	0	(100)
Scheme for assistance to sugar mills for 2019-20 season	2120.86	0	14.5	0	(100)
Scheme for defraying expenditure towards internal transport, freight, handling, and other export fees	3.1	0	20.5	0	(100)

**Note:** Percent change depicted for 2023/2024 with initial budget estimate over 2022/2023 revised budget estimate. One crore equals ten million.

**Data source:** Department of Food and Public Distribution.

### Sugar Subsidy Scheme

The Indian government has reviewed the existing sugar under Sugar Subsidy Scheme for distribution of sugar through Antyodaya Anna Yojana program (Uplifting the poorest food plan) at INR 18.50/kg (\$0.24/kg), providing 1.0 kg of sugar per family per month. Furthermore, states and union territories are permitted to add on any extra expenses related to shipping and handling fees directly to the beneficiary to incur directly to the retail issue price of INR 13.50/kg (\$0.16/kg)<sup>19</sup>.

### National Biofuel Policy and Ethanol Blended Petrol Program

The Indian government set targets for the national average ethanol blend rates in gasoline of 10 percent (E-10) and 20 percent (E-20) by 2022 and 2025, respectively, under the 2018 National Biofuel Policy. The program's objective is to boost the production of ethanol from sugarcane,

<sup>18</sup> Source: [DFPD Budget Allocations](#)

<sup>19</sup> Source: Department of Food and Public Distribution. "[Review Of Existing System for Distribution of Sugar Through PDS to Antyodaya Anna Yojana \(AAY\) Families.](#)"

broken grains, and other feedstocks. To achieve this target, the Indian government is encouraging sugar mills and distilleries to divert surplus sugar derivatives to produce ethanol under the Ethanol Blending Program (EBP). India did achieve its E-10 target, briefly reaching a national blending average of 10.1 percent in June 2022, and additional projects are in place to reach E-20.<sup>20</sup> The Ministry of Petroleum and Natural Gas has increased procurement prices for ethanol derived from sugarcane derivatives under the EPB program for ethanol supply year (ESY) 2022/23 (December-November) (Table 5).<sup>21</sup>

**Table 5: India: Ethanol Price by Feedstock for ESY 2021/22 and ESY 2022/23 (INR/Liter)**

<b>Feedstock</b>	<b>ESY 2021/22</b>	<b>ESY 2022/23</b>
<b>Sugarcane Juice/Sugar Syrup/Sugar</b>	63.45	65.61
<b>B-Heavy Molasses</b>	59.08	60.73
<b>C-Heavy Molasses</b>	46.66	49.41
<b>Damaged Food Grains/Maize</b>	51.55	55.54
<b>Surplus Rice (from Food Corporation of India)</b>	56.87	58.50

Data Source: MoPNG.

<sup>20</sup> See: “What is E20 petrol, and how will it affect your vehicle?” [Times of India](#); published February 7, 2023.

<sup>21</sup> Source: Government of India, Ministry of Petroleum and Natural Gas; Press Information Bureau Release ID: [1873022](#).

**Attachments:**

No Attachments