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Report Highlights:

FAS/San José projects Costa Rican sugar production to rebound to 400,000 metric tons in marketing year 2023/24, climbing nearly 10 percent higher from marketing year 2022/23, on drier conditions associated with the anticipated return of an El Niño weather system. Costa Rican sugar and sugarcane production in marketing year 2022/23 were at the lowest levels in more than a decade, as unusually high precipitation, lower fertilizer applications, and declines in area planted drove sugar production down to an estimated 365,000 metric tons.

Executive Summary

FAS/San José projects sugarcane and sugar production will increase in marketing year (MY) 2023/24, as weather conditions are forecast to be more favorable to sugar production and the cost of fertilizer is expected to remain below 2022 prices. Gasoline and diesel prices declining from 2022 peaks are also expected to provide sugar farmers some cost of production relief. However, factors contributing to recent sugar production declines, such as high debt, inadequate replanting rates, and competition for land in urbanizing areas, are not expected to abate in 2023. The depreciation of the U.S. dollar against the Costa Rican colón, down more than 20 percent between January and April 2023, has partially offset the benefits of relatively high global sugar prices, reducing Costa Rican sugar industry export revenues on dollar-denominated export contracts.

FAS/San José projects that sugar production will rebound almost 10 percent in MY 2023/24 to 400,000 MT, following the extreme weather and input prices surges that contributed to reductions in MY 2022/23 production. Projected MY 2023/24 production levels would allow Costa Rica to continue to supply domestic distribution, to satisfy quota allocations for exports to the United States, and to export on commercial terms to the European Union, Canada, and other markets.

FAS/San José expects Costa Rican sugar production to decline 12 percent during MY 2022/23 to 365,000 MT, extending the declining trend dating back to MY 2018/19. Industry sources indicated that abnormally high rains throughout 2022 caused lower cane production as well as lower sugar concentration. The impact of adverse weather on sugar production was compounded by the high cost of fertilizer and diesel during 2022, delayed replanting on smaller farms, and less area planted.

Production

MY 2023/24

FAS/San José projects Costa Rican MY 2023/24 sugarcane production at 3.85 million MT and sugar production at 400,000 MT, on an improved weather forecast, relatively high global sugar prices early in the marketing year, and relatively lower input prices (owing in part to the appreciation of the Costa Rican colón in early 2023). With lower fuel prices, improved access to fertilizer and drier fields, FAS/San José anticipates across-the-board improvements in cultural practices in MY 2023/24, notably additional weed management and higher utilization of fertilizer and other soil amendments, benefitting smaller and larger-scale producers alike.

The Costa Rican weather service is forecasting the end of the current La Niña weather system by the end of June 2023, followed by an El Niño system, which typically results in less rainfall, beginning in July 2023. Weather forecasters expect the annual rainy season to start ‘on time’ in 2023; around May 3-9 in the Central Valley and May 29 - June 4 in Guanacaste. Despite the anticipated return to more typical precipitation patterns, the MY 2023/24 growing season has already experienced excess moisture challenges, with atypically heavy rains in March 2023.

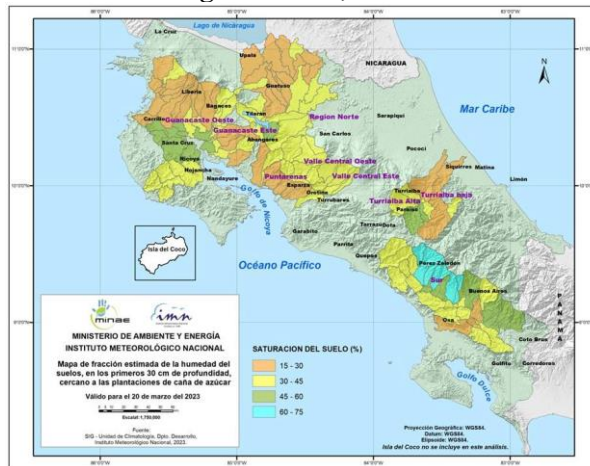
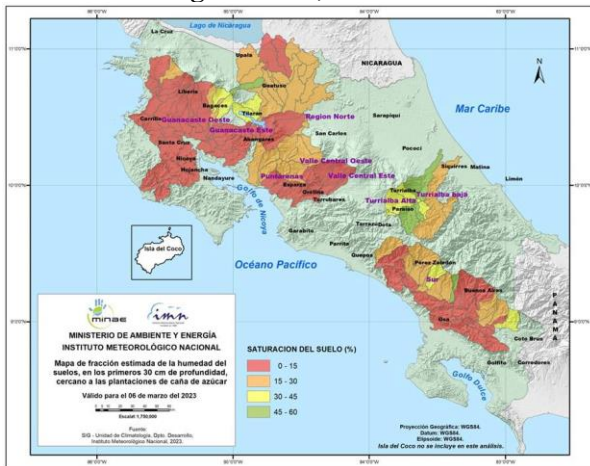
The brief period of typically light rains in March – known locally as ‘las lluvias de los cafetaleros’ for their role in promoting coffee plant flowering – were unusually strong, early, and sustained in 2023,

contributing to significantly higher than usual soil moisture rates (see the maps below comparing soil saturation rates for the same period over the last four years). Soil saturation rates across primary growing areas in Guanacaste increased from near zero percent on March 6, to the 30-60 percent range by March 20, reaching moisture levels within a two-week period not typically observed until the rainy season is underway in early June.

Figures 1-5. Soil Saturation Maps for Sugarcane Producing Areas (March 2020-2023)

1. Period ending March 6, 2023

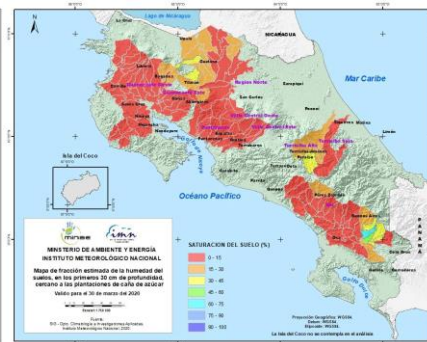
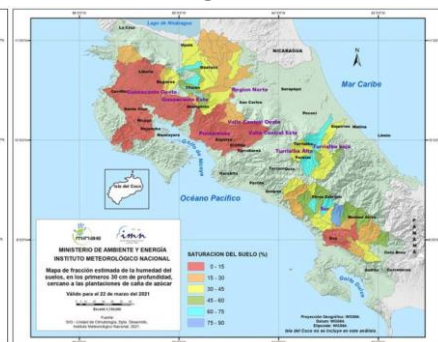
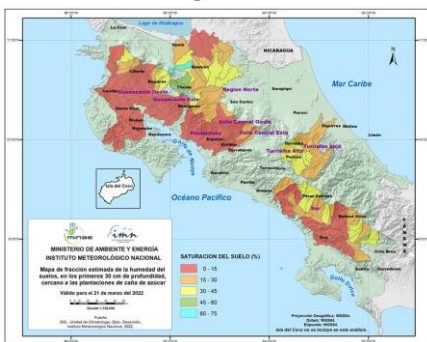
2. Period ending March 20, 2023



3. Period ending March 21, 2022

4. Period ending March 22, 2021

5. Period ending March 30, 2020



FAS/San José projects MY 2023/24 sugarcane area planted slightly higher at 60,000 hectares (ha) though sugarcane area planted remains under pressure from other agricultural and economic activities in different production regions. The exception is the Northern Region, around Los Chiles near the border with Nicaragua, where new sugarcane production areas have been established to take advantage of the climate and flat topography of that area. The larger mills in Guanacaste have capacity to expand sugar production and are trying to attract former rice producers into planting sugarcane. FAS/San José will continue to monitor the impact of declining rice area planted in Guanacaste in 2022 and 2023, following Costa Rica’s August 2022 abandonment of a decades-old rice price floor policy (see GAIN CS2022-0016 <https://www.fas.usda.gov/data/costa-rica-costa-rica-reduce-imported-rice-tariffs> for more information), for possible increases to sugarcane area planted.

Within the Central Valley and some smaller growing areas, the advance of urbanization appears inexorable over the medium-term, despite relatively high global sugar prices in 2023, as higher production costs, historical debt loads, and increasing land values are expected to extend the trend of production area losses. As an example of this trend, a new Free Trade Zone is being developed near Tacares, Grecia, on 130 ha of land previously planted to sugarcane. The Free Trade Zone is expected to generate 20,000 jobs over the next 15 years, with a projected investment of \$200 million. The Central Valley region lost 271 ha of sugarcane area in MY 2021/22, according to data from the Costa Rican Sugar League (LAICA). Another problem affecting smaller-sized sugarcane growers, which are typically too small to take advantage of mechanical harvesting equipment, has been strict labor and immigration regulations limiting the availability of foreign workers to manage and harvest sugarcane.

MY 2022/23

As of March 30, 2023, the MY 2022/23 sugarcane harvest and sugar processing had basically ended for the season in Guanacaste and is close to completion in the Southern region of the country, while it was still underway in the Juan Viñas, Central Valley, and San Carlos regions. LAICA preliminary data project sugarcane and sugar production at 3.46 million MT and 365,000 MT respectively during MY 2022/23, both significantly lower than MY 2021/22 levels. LAICA has preliminarily estimated the MY 2022/23 national average sugarcane yield at 63 MT/ha, down 11 percent from MY 2021/22 and the lowest since MY 2010/11. The MY 2022/23 average sugar processing yield is expected to decline 2 percent to 105 kg/MT.

Different sugar sector sources indicated the sharp decline in MY 2022/23 production had taken them somewhat by surprise, though increased precipitation – the primary factor for lower production – was a persistent problem from April 2022 onward. In general, sustained heavy precipitation throughout the MY 2022/23 growing season negatively affected weed control activities and fertilization programs, produced a higher incidence of flowering (which has a negative effect on sugar yields), and resulted in higher incidence of plant diseases, including fungal diseases not common in Costa Rican sugarcane production.

The rainy season started earlier (April) and ended later (November) in 2022, and produced higher than normal precipitation in most production areas (all but the Atlantic region). Specific events, such as Tropical Storm Bonnie (July 1-3) and Hurricane Julia (October 8-10), generated significant rainfall in most production areas, exacerbating already high seasonal precipitation levels. One of the largest mills in Guanacaste attributed a nearly 40 percent reduction in sugarcane production on company plantations in MY 2022/23 to nearly continuous rainfall from May to September 2022, during the primary growth period of the plants. Heavy rains and the poor drainage associated with the high clay content of soils in sugarcane growing regions left sugarcane plantations saturated with water, inhibiting plant development and cultural practices. Persistent precipitation and cloud cover also reduced solar radiation and average temperatures in primary production areas, further dragging down agronomic yields.

Another significant factor contributing to reduced MY 2022/23 sugarcane production was reduced fertilization – both frequency and volume of applications – on many plantations, though most acutely on small- and medium-sized sugar plantations. With relatively high fertilizer prices, dating back to COVID-19-related supply chain disruptions and exacerbated by the Russian invasion of Ukraine in February

2022, only farmers or companies that had forward contracted fertilizer purchases well in advance were able to fertilize the MY 2022/23 sugarcane crop at rates approaching typical levels. Many, if not most, smaller producers cut fertilization rates as nitrogen prices soared from \$350/MT to \$970/MT between February 2021 and May 2022. A sharp increase in diesel fuel prices between 2020 and 2022, further increased the costs of fertilizer applications over the same period.

According to preliminary data, FAS/San José expects sugarcane area planted to decline to 59,500 ha in MY 2022/23.¹ Sugarcane area planted declined to 59,836 ha in MY 2021/22, falling from 60,668 ha in MY 2020/21, including about 450 ha of sugarcane area planted lost to producers switching to cattle production.

Table 1. Costa Rica: Sugarcane and Sugar Production

Marketing Year	Sugarcane (MT)	Sugar (MT)
2016/17	4,343,890	452,160
2017/18	4,054,141	431,109
2018/19	4,025,447	442,187
2019/20	4,092,123	440,393
2020/21	3,995,020	425,178
2021/22	3,987,888	415,897
2022/23*	3,460,097	365,000

* Preliminary data.

Source: Costa Rican Sugar League (LAICA)

Background

According to LAICA, there were 5,013 sugarcane producers in MY 2021/22, down from the MY 2013/14 high of 7,830, as smaller sugarcane farmers have aged out of the industry and successive generations have sold or leased sugarcane area to remaining growers. The sector is comprised of primarily small producers, with 90 percent of farms delivering less than 500 MT of sugarcane annually to the mills. While most producers plant less than 7 ha of sugarcane, 17 producers delivered more than 5,000 MT of sugarcane in MY 2021/22.

Sugarcane is grown in six regions with different climates, altitudes, and topography: Guanacaste and Puntarenas on the Pacific side of the country; the Northern Region, near the border with Nicaragua; the Central Valley; Turrialba; and the Southern Region, near the border with Panama. Sixty-five percent of the sugar production is concentrated in the provinces of Guanacaste in the Northern Pacific (32,887 ha) and Puntarenas (6,004 ha) along the Central and Southern Pacific regions. Production in the other five regions is distributed more evenly, ranging from 5 to 16 percent of the total. According to data from LAICA, roughly 80 percent of sugarcane is expected to have been harvested mechanically during MY 2022/23.

¹ Area planted data is reported through sugarcane delivery surveys collected by sugar mills. With MY 2022/23 harvest ongoing in several areas at the writing of this report, final data for MY 2022/23 were not available.

Consumption

FAS/San José projects total Costa Rican domestic sugar consumption to rise to 225,000 MT in MY 2023/24, on expanding utilization in food, beverage, and alcohol manufacturing and sustained recovery of food service activity following the elimination of COVID-19 gathering restrictions and masking requirements in 2022. Costa Rican population growth rates have been trending downward since at least 2001, and were just above 1 percent in 2021, the most recent year for which data is available. On an estimated 2023 population of 5.3 million people (extrapolated from recent growth rate trends), FAS/San José projects annual per capita consumption at approximately 42 kg. While Costa Rica's per capita consumption remains relatively high, it has fallen by nearly a third since MY 1997/98, as public health campaigns combatting diabetes and changing cultural norms have helped drive down sugar consumption while supporting consumption of sugar alternatives.

Costa Rican mills produce different types of sugar for the domestic market, including raw sugar, white sugar, refined sugar, white special, and organic sugar.

Trade

FAS/San José projects Costa Rican raw value basis sugar exports to climb to 185,000 MT in MY 2023/24 on expected production recovery discussed above. Based on historical export patterns, FAS/San José expects the United States, South Korea, Spain, United Kingdom, and Germany to remain the leading destinations for Costa Rican sugar exports. Exports to the United States include sugar quota volumes allocated within the U.S. commitments under World Trade Organization (WTO) Agreement and negotiated in the Dominican Republic-Central America Free Trade Agreement (CAFTA-DR) as well as sugar for re-export.

Table 2: Centrifugal Sugar Export Volume Matrix (Oct/Sep Marketing Year, MT)

Country of destination	2019/2020	2020/2021	2021/2022
United States	51,198	78,008	103,968
South Korea	115,563	70,694	35,000
United Kingdom	15,919	6,261	13,232
Spain	735	72	9,981
Bahamas	3,672	3,916	3,594
Germany	1,297	11,563	3,773
Netherlands	3,125	2,969	3,020
Others not listed	7,785	49,191	9,411
Total	199,294	222,674	181,979

Source: Costa Rica's Customs Department

FAS/San José expects Costa Rican sugar exports to fall to 140,000 MT in MY 2022/23, down 23 percent from MY 2021/22, mainly on lower expected production volume. As of March 31, 2023, Costa Rica had already exported its full WTO sugar quota – 16,137 MT raw value allocated volume as well as 4,424 MT raw value of reallocated quota volume – to the United States for U.S. fiscal year (FY) 2023, which corresponds to sugar MY 2022/23.

FAS/San José projects MY 2023/24 sugar imports at 5,000 MT on sustained volumes of refined sugar for direct consumption. Though imports are generally negligible, white sugar for direct consumption from Brazil has arrived in higher than traditional amounts since 2015. The Government of Costa Rica imposed a safeguard measure on Brazilian refined sugar to limit import growth in August 2020, pushing the import duty on imported refined sugar from 45 percent to 72.68 percent. After peaking at 12,771 MT in 2020, imports from Brazil were 7,136 MT in 2021, and 900 MT in 2022, according to Trade Data Monitor data. Costa Rican data for 2022 is currently incomplete as a result of a 2022 cyberattack on Costa Rica’s Ministry of Finance that disrupted government data collection and reporting.

Stocks

FAS/San José projects MY 2023/24 sugar ending stocks at 330,000 MT. Costa Rican sugar ending stock volumes reflect a residual of export and consumption projections and estimates.

Table 3: Sugarcane for Centrifugal Sugar: Supply and Utilization

Sugarcane for Centrifugal Market Year Begins	2021/2022		2022/2023		2023/2024	
	Oct 2021		Oct 2022		Oct 2023	
	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Costa Rica						
Area Planted (1,000 HA)	62	60	60	60	0	60
Area Harvested (1,000 HA)	56	56	55	55	0	55
Production (1,000 MT)	4080	3989	3950	3460	0	3850
Total Supply (1,000 MT)	4080	3989	3950	3460	0	3850
Utilization for Sugar (1,000 MT)	4080	3989	3950	3460	0	3850
Utilization for Alcohol (1,000 MT)	0	0	0	0	0	0
Total Utilization (1,000 MT)	4080	3989	3950	3460	0	3850

(1,000 HA), (1,000 MT)

Table 4: Centrifugal Sugar: Production, Supply and Distribution

Sugar, Centrifugal Market Year Begins Costa Rica	2021/2022		2022/2023		2023/2024	
	Oct 2021		Oct 2022		Oct 2023	
	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Beginning Stocks (1000 MT)	299	299	305	325	0	335
Beet Sugar Production (1000 MT)	0	0	0	0	0	0
Cane Sugar Production (1000 MT)	416	416	405	365	0	400
Total Sugar Production (1000 MT)	416	416	405	365	0	400
Raw Imports (1000 MT)	0	0	0	0	0	0
Refined Imp.(Raw Val) (1000 MT)	10	10	10	5	0	5
Total Imports (1000 MT)	10	10	10	5	0	5
Total Supply (1000 MT)	725	725	720	695	0	740
Raw Exports (1000 MT)	180	172	185	130	0	170
Refined Exp.(Raw Val) (1000 MT)	25	10	25	10	0	15
Total Exports (1000 MT)	205	182	210	140	0	185
Human Dom. Consumption (1000 MT)	215	218	220	220	0	225
Other Disappearance (1000 MT)	0	0	0	0	0	0
Total Use (1000 MT)	215	218	220	220	0	225
Ending Stocks (1000 MT)	305	325	290	335	0	330
Total Distribution (1000 MT)	725	725	720	695	0	740

(1,000 MT)

Attachments:

No Attachments