

Evaluation of the progress of the 2021/2022 harvest season, perspectives for the final crop cycle and CBios market

PRESENTATION SCHEDULE

1. EVALUTION OF THE PROGRESS OF 2021/2022 HARVEST SEASON

- Production
- Market and prices

2. COMMENTS ABOUT RENOVABIO AND CBIOs MARKET

3. CHALLENGES AND OPPORTUNITIES FOR MEDIUM RUN



PRESENTATION SCHEDULE

1. EVALUTION OF THE PROGRESS OF 2021/2022 HARVEST SEASON

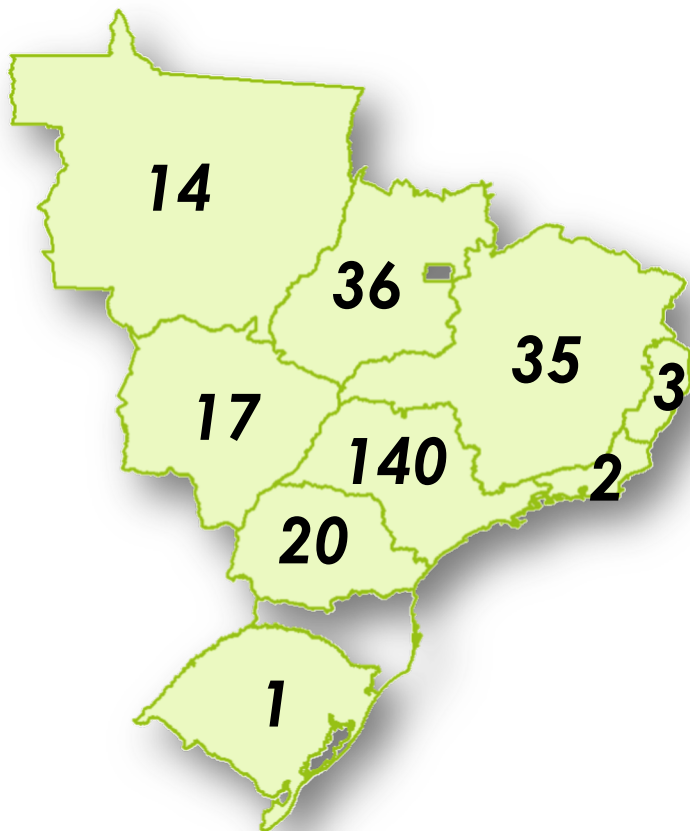
- Production
- Market and prices

2. COMMENTS ABOUT RENOVABIO AND CBIOS MARKET

3. CHALLENGES AND OPPORTUNITIES FOR MEDIUM RUN



NUMBER OF PRODUCTION UNITS



2021/2022 HARVEST SEASON

- ❑ **268** sugarcane mills were in operation in South-Central region, in which 4 units manufacture sugarcane and corn ethanol
- ❑ **6** units with exclusive corn ethanol production
- ❑ **70** units with exclusive sugarcane ethanol production

Position until 09/16/2021

South-Central region



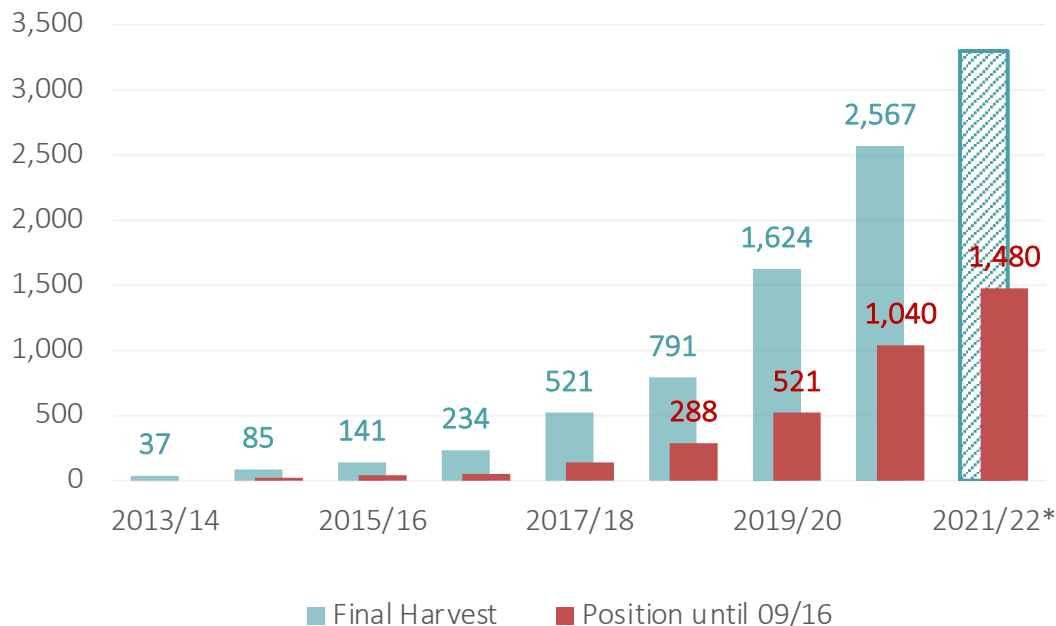
Description	Harvest		Variation (%)
	2020/2021	2021/2022	
Sugarcane crush ¹	461,491	430,953	-6.6%
Sugar ¹	29,189	26,830	-8.1%
Anhydrous ethanol ²	6,368	8,051	26.4%
Hydrous ethanol ²	15,022	12,702	-15.4%
Total ethanol ²	21,391	20,752	-3.0%
TRS ¹	65,188	61,020	-6.4%
TRS/ ton of sugarcane	141.26	141.59	0.2%
Share (%)	<i>Sugar</i>	46.99%	46.15%
	<i>Ethanol</i>	53.01%	53.85%
Liters of ethanol/ ton of sugarcane	44.10	44.72	1.4%
Kg of sugar/ ton of sugarcane	63.25	62.26	-1.6%

Source: UNICA. Note: ¹ - thousand tons; ² - million liters; ³ - kg of TRS/ ton pf sugarcane. Total Recoverable Sugar (TRS) index was calculated excluding corn ethanol production.

CORN ETHANOL IN SOUTH- CENTRAL REGION



Corn ethanol production (millions of liters)



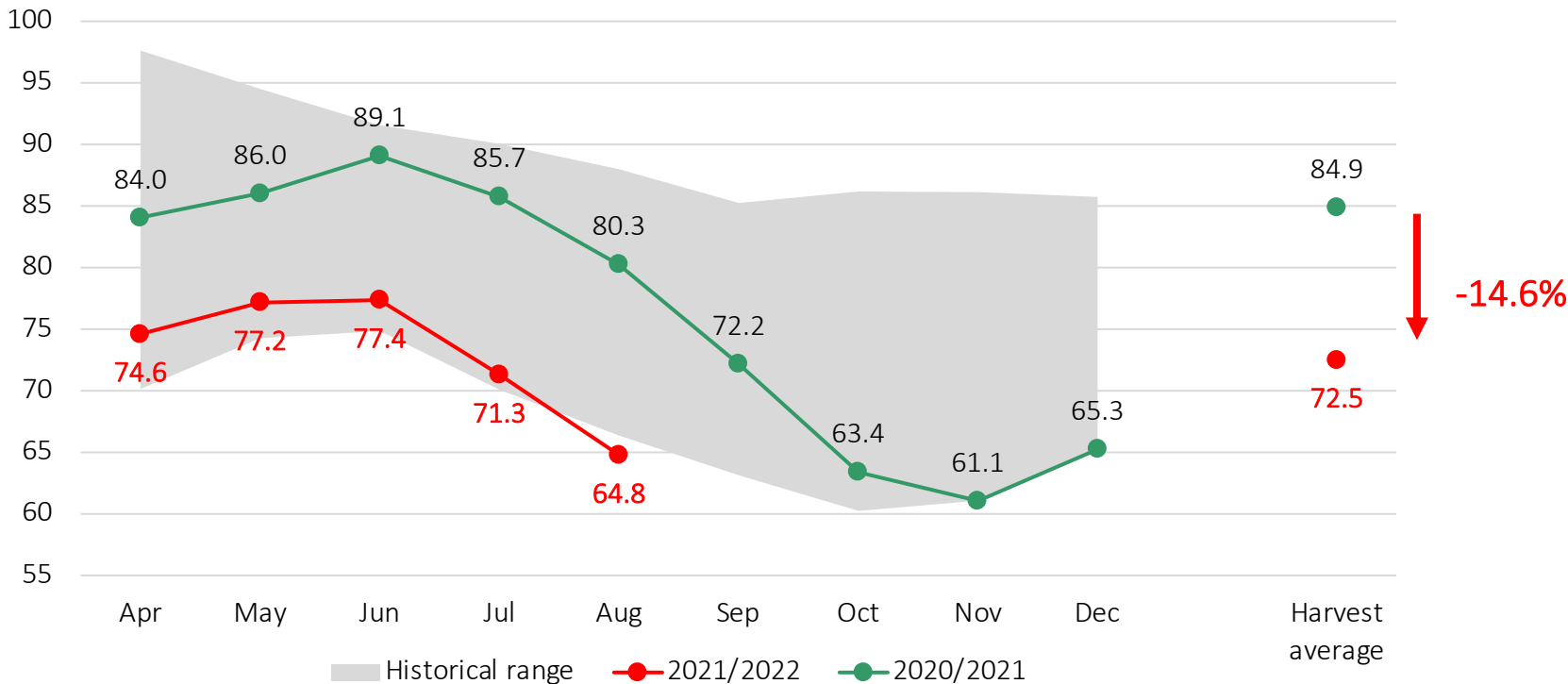
Total production in 2021/22 harvest season until Mid Sep

State	Volume (millions of liters)	
GO	164.7	20%
MT	1,309.4	46%
Total	1,479.4	21/22
	1,039.8	20/21

HARVEST PRODUCTIVITY – 2021/2022 (until August)



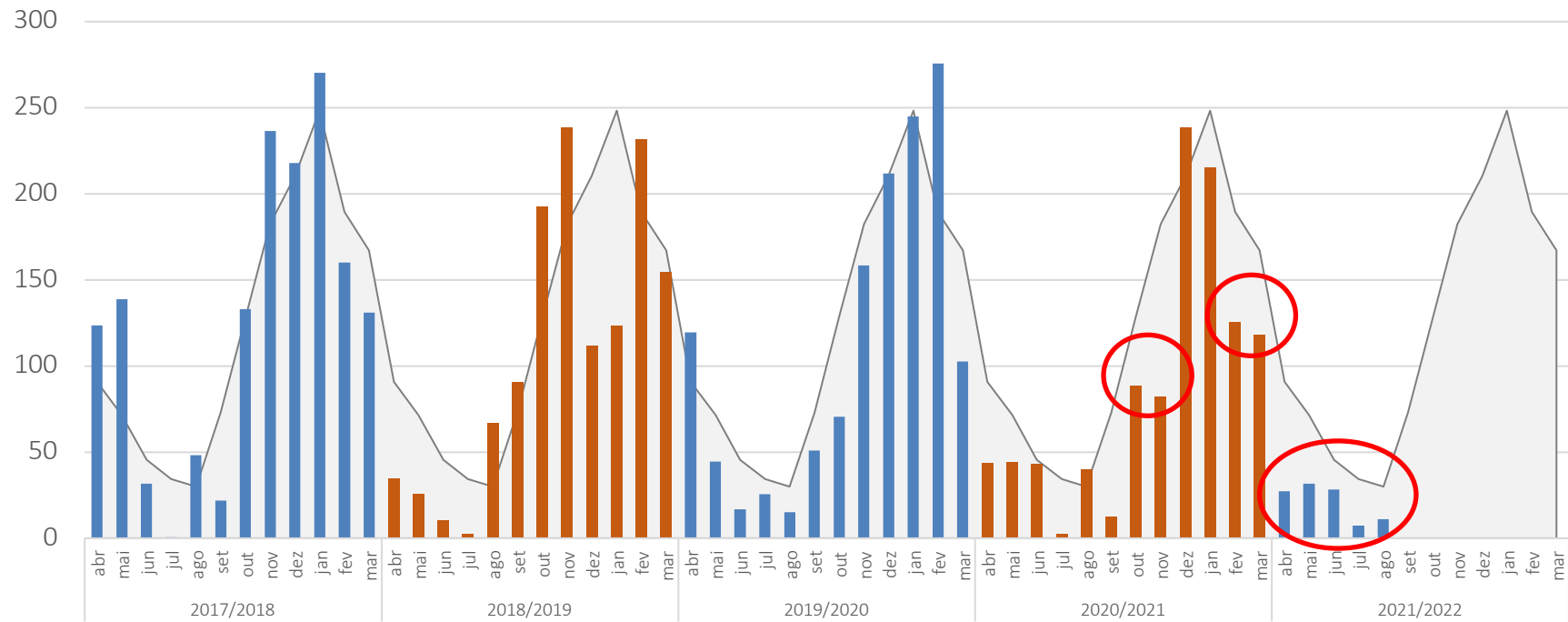
HARVEST PRODUCTIVITY of Brazilian’s South-Central region. Values expressed in tonnes of sugarcane per hectare.



RAIN LEVEL ON SUGARCANE PRODUCTION AREAS

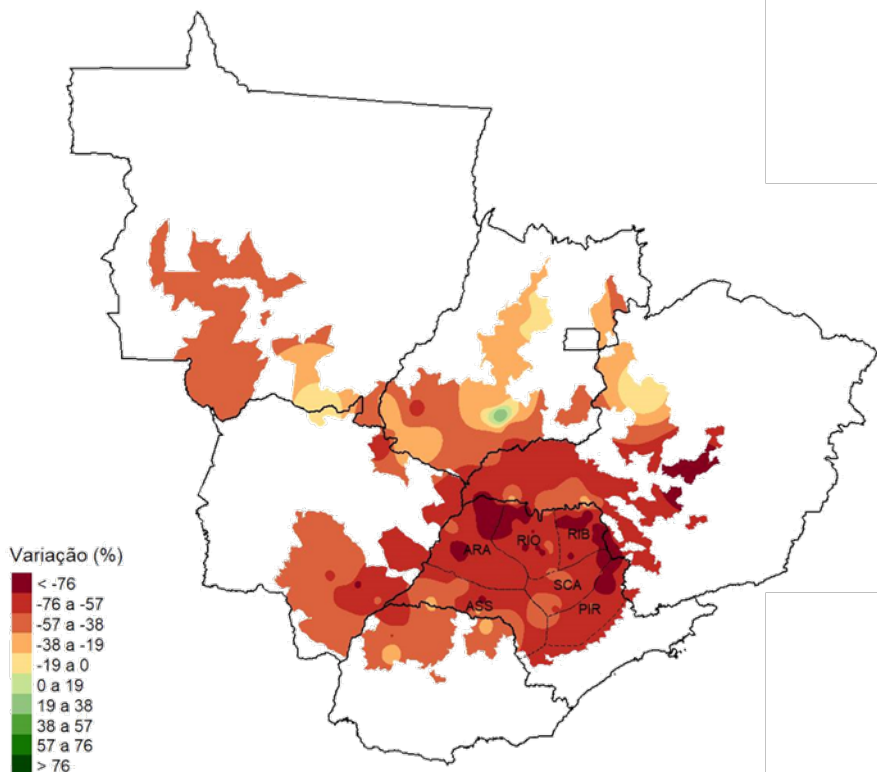


Millimeters Historical average (last 20 years)

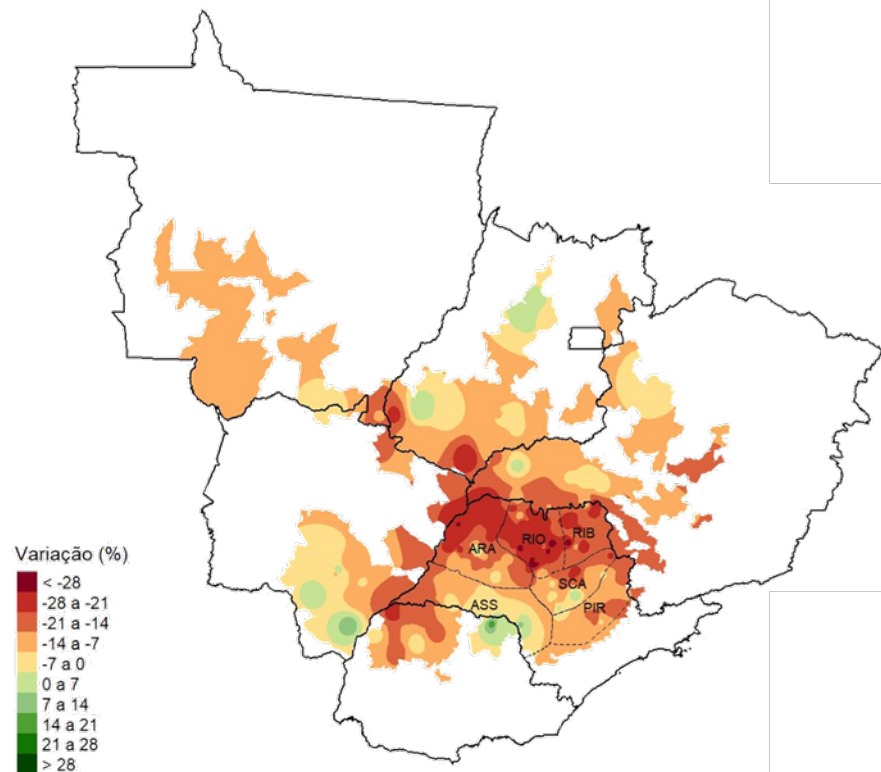


IMPACT OF DROUGHT ON THE SUGARCANE CULTIVATION AREA

Variation (%) in rainfall for the 2021/22 harvest
(apr-aug) vs historical normal



Variation (%) in agricultural productivity in the
2021/22 harvest (apr-aug)



PERSPECTIVES ABOUT 2021/2022 HARVEST SEASON



About agricultural aspects

- ✓ Productivity will be jeopardized by climate conditions ↓
- ✓ Reduction of harvest area (change to another commodity or reform area) ↓



Sugarcane crush and industrial processing

- ✓ The harvest continues with “sugar bias”, with the production of sugar been maximized by the mills; however anhydrous has been prioritized, in detriment of hydrous ethanol, in order to ensure compliance with the minimum ethanol content on gasoline



Market conditions

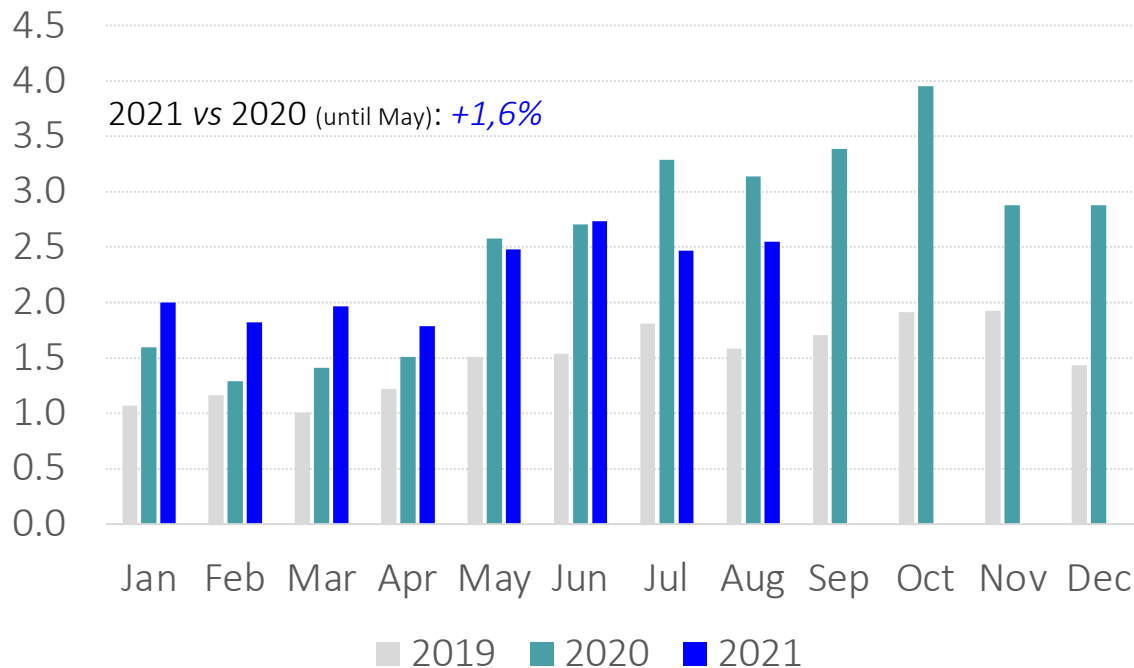
- ✓ Attractive sugar prices (international deficit) combined with a high exchange rate, positive for Brazilian exports ↑
- ✓ Pandemic control through vaccination and the increase of transportation demand will enable the recovery of fuel demand ↑

SUGAR EXPORTS

BRAZIL



Millions of tons



Accumulated on harvest season

	2020/21	2021/22	Var.
Volume ¹	13,220	12,016	-9%
Value ²	19.72	20.95	+6%

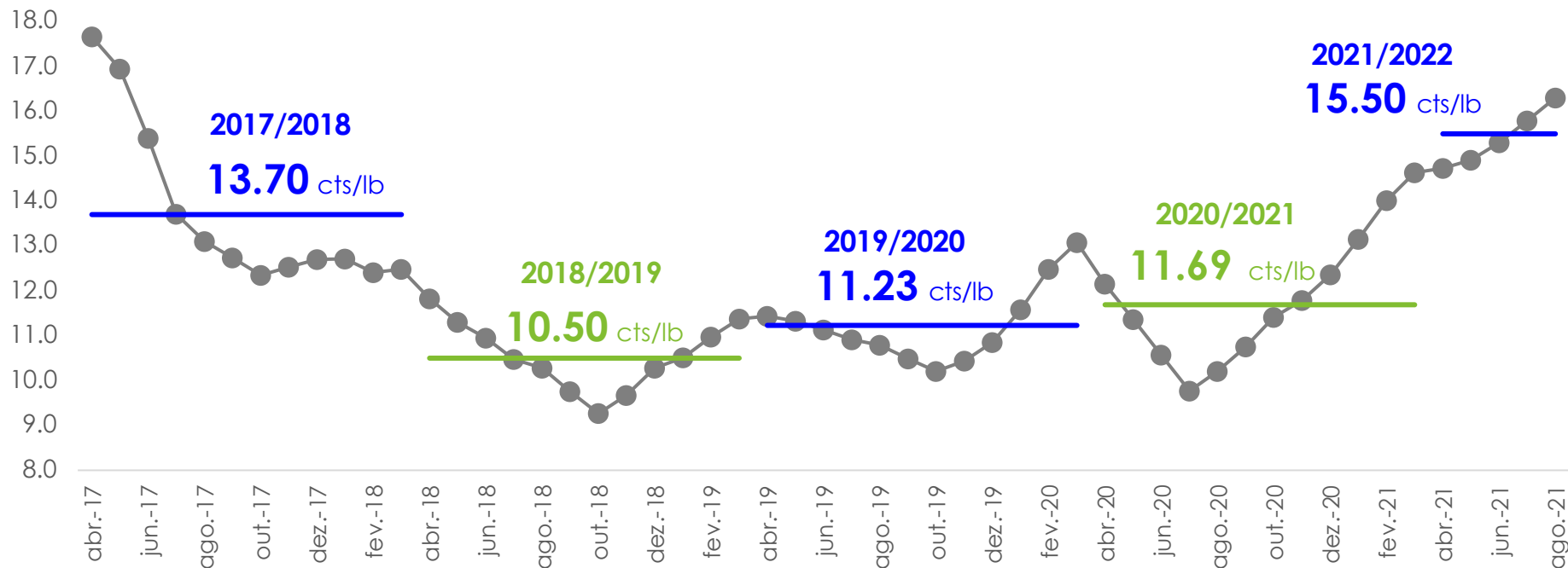
¹Millions of Tons; ² billions of USD

Top 5-ranked country export destinations for Brazilian sugar exports in 2021/2022 crop cycle

Country	Share
China	21.8%
Argélia	9.3%
Nigeria	6.8%
Bangladesh	5.1%
Canada	4.9%
<i>Outros</i>	52.1%

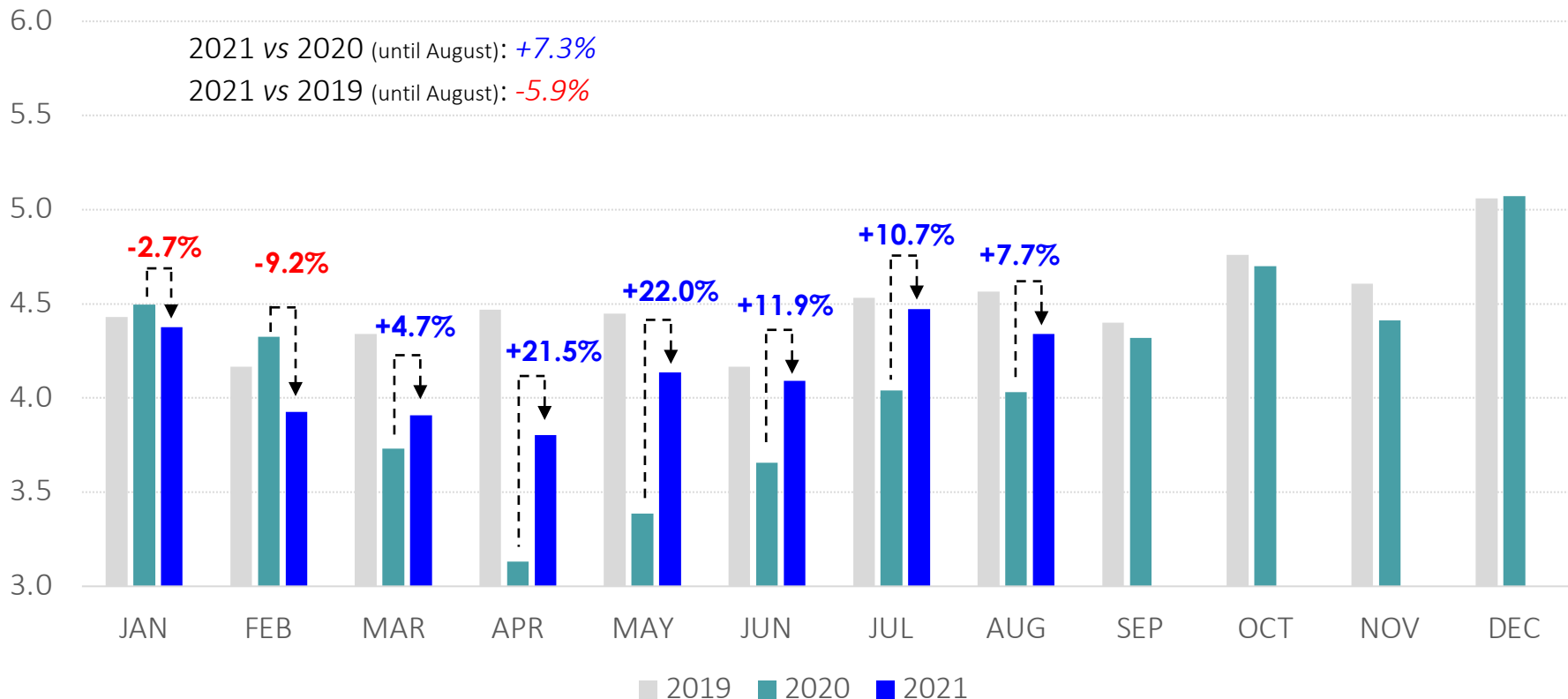
SUGAR PRICES

VHP Sugar exportation price*: monthly prices received by São Paulo state producers (USD cts/lb)



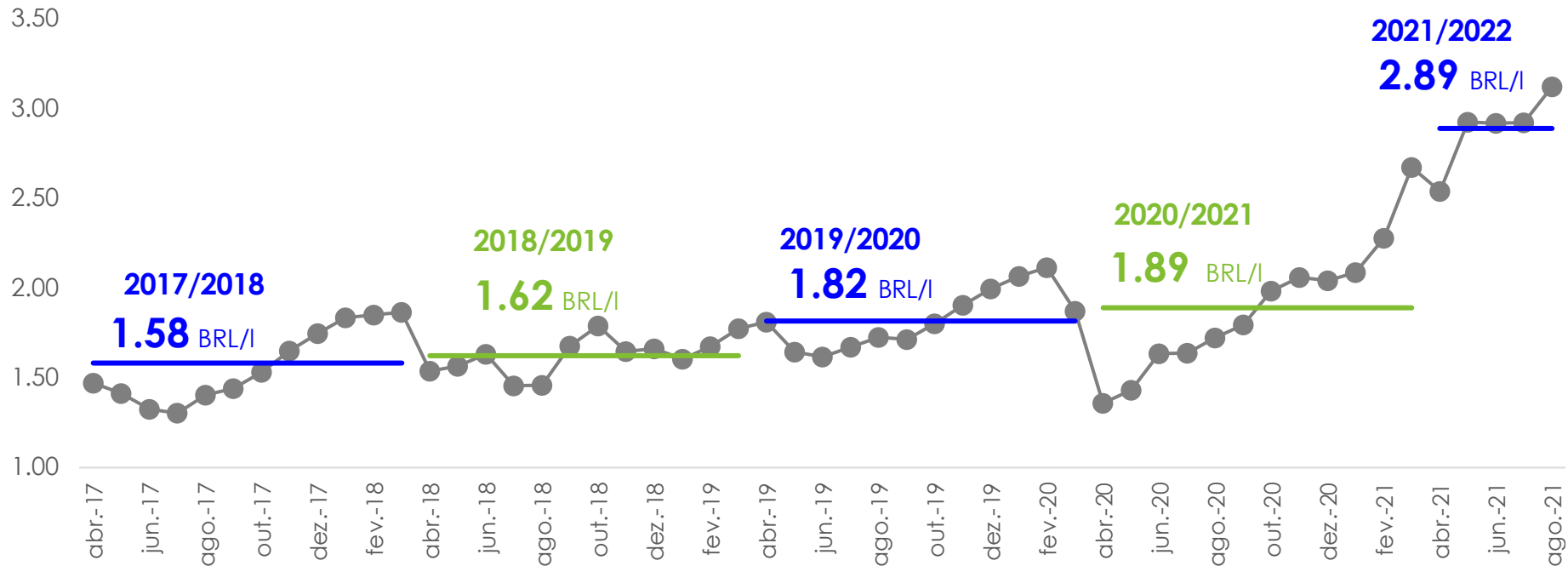
FUEL CONSUMPTION IN BRAZIL

Billions of gasoline equivalente



ETHANOL PRICE FOR PRODUCERS

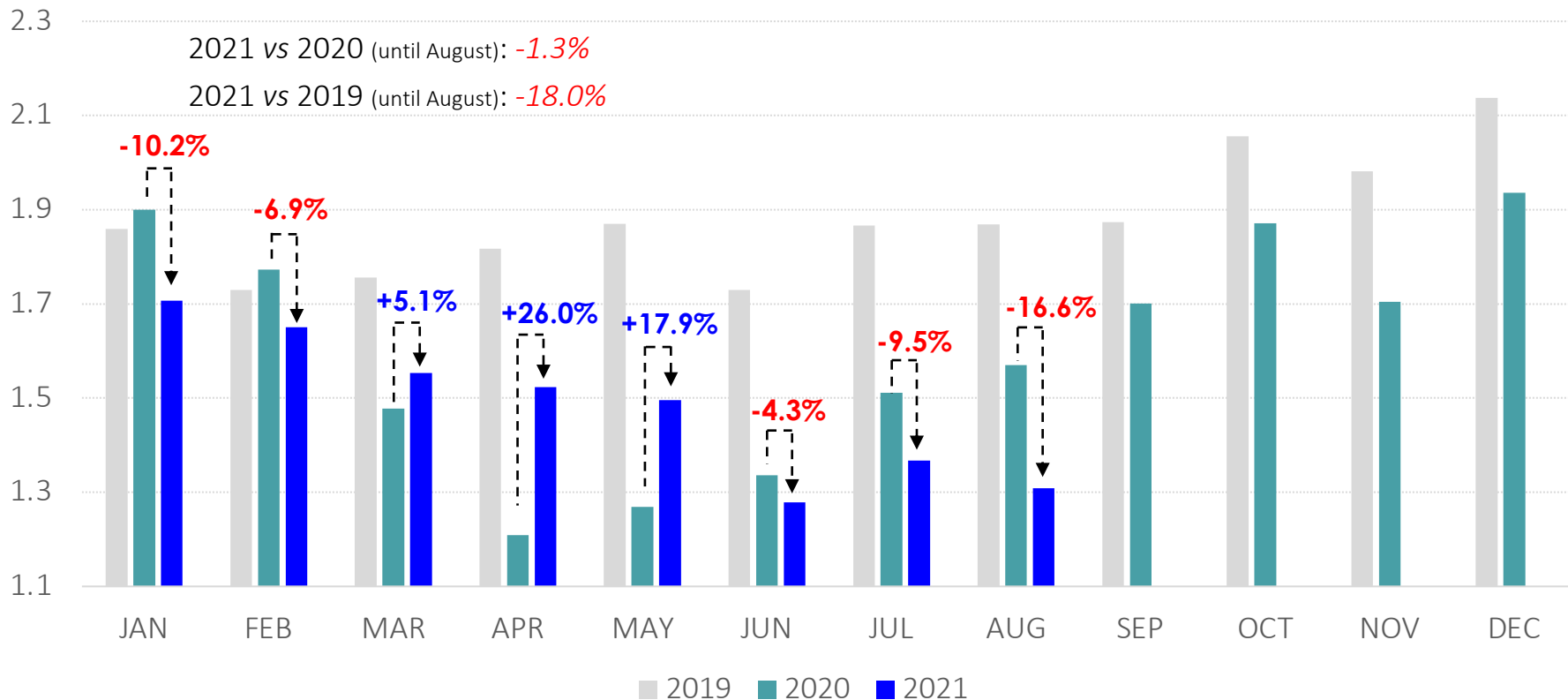
HYDROUS ETHANOL: monthly prices received by São Paulo state producers (BRL/liter)



HYDROUS ETHANOL CONSUMPTION IN BRAZIL



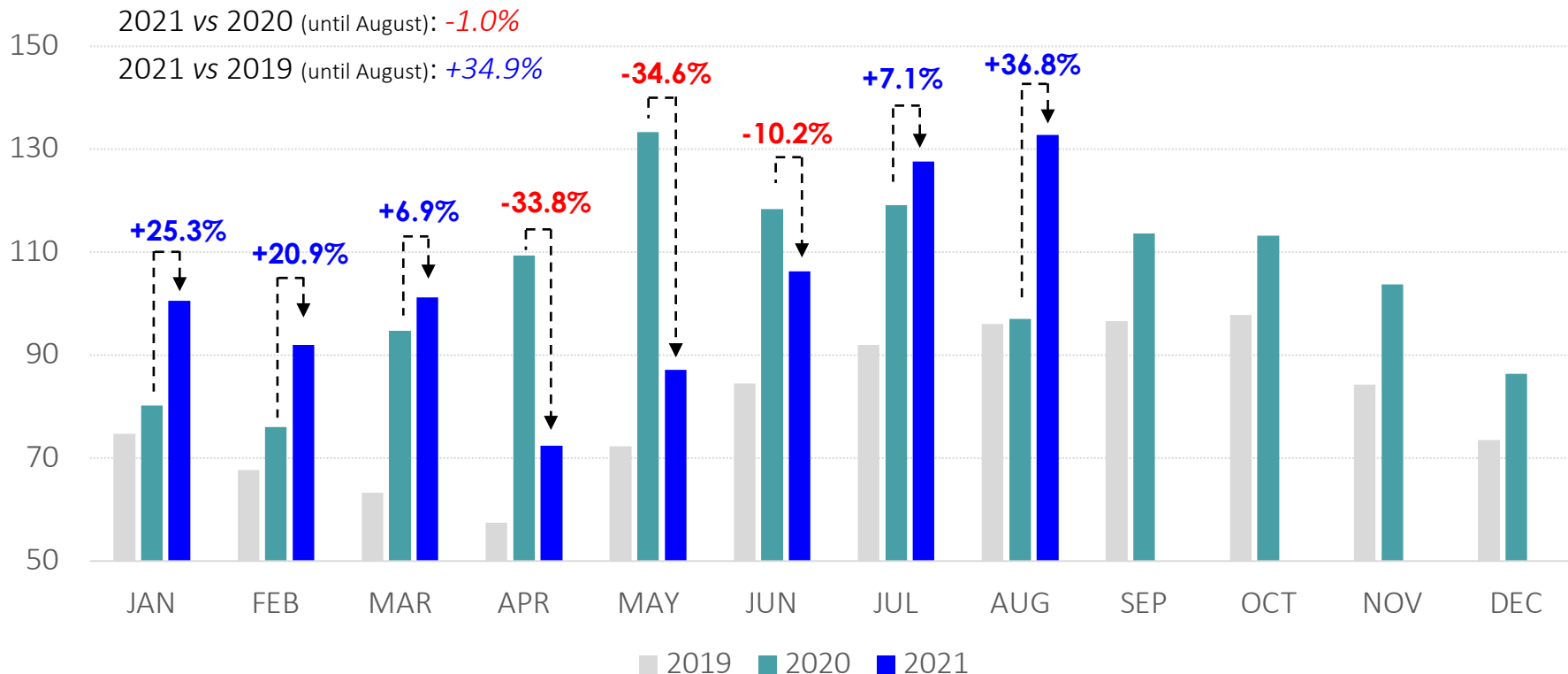
Billions of liters



CONSUMPTION OF **NON-FUEL** ETHANOL IN BRAZIL



Millions of liters



PRESENTATION SCHEDULE

1. EVALUTION OF THE PROGRESS OF 2021/2022 HARVEST SEASON

- Production
- Market and prices

2. COMMENTS ABOUT RENOVABIO AND CBIOs MARKET

3. CHALLENGES AND OPPORTUNITIES FOR MEDIUM RUN



RENOVABIO

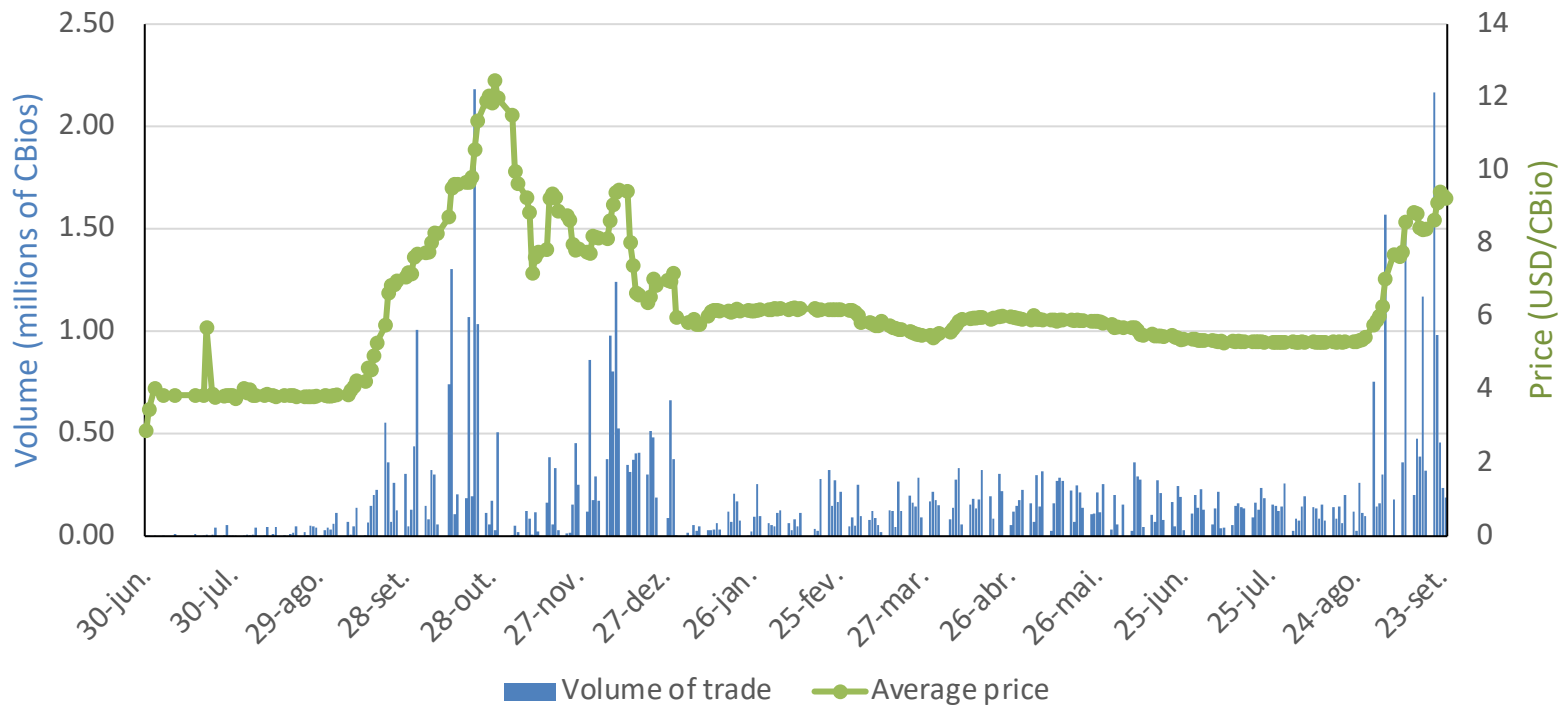
CERTIFICATION PROCESS

- ✓ Approved certifications: 257 companies.
- ✓ About 880 liters of ethanol per CBio.
- ✓ These companies represent about 90% of ethanol supply in Brazil.

CBIO MARKET

- ✓ In 2020, in its first year of operation, the CBio market traded more than US\$ 120 million and 15 million decarbonization credits were traded
- ✓ In 2021, obligated party (distributors) has already purchased almost 85% of the mandate

CBIO TRADING REGISTERED ON THE BRAZILIAN STOCK EXCHANGE



PRESENTATION SCHEDULE

1. EVALUTION OF THE PROGRESS OF 2021/2022 HARVEST SEASON

- Production
- Market and prices

2. COMMENTS ABOUT RENOVABIO AND CBIOS MARKET

3. CHALLENGES AND OPPORTUNITIES FOR MEDIUM RUN



MEDIUM RUN CONSIDERATIONS

➤ MARKET

- ✓ **Sugar:** need to reduce international trade distortions
- ✓ **Ethanol:**
 - ✓ *Climate agenda in the world and energy transition*
 - ✓ *Vehicle technology and changes in transport demand:* the role of ethanol in the future sustainable mobility (bioelectrification)
 - ✓ *RenovaBio Effects:* new dynamics of markets
 - ✓ *Political risks (Brazil):* independency of Petrobrás in fossil fuels pricing, ethanol blend

➤ PRODUCTION

- ✓ Process management and introduction of new sugarcane varieties, technologies (agriculture 4.0) and products (biogas, biomethane and 2G)

THANK YOU!