

INDIAN SUGAR SECTOR

Domestic and international prices remain firmed up, supported by balanced demand-supply situation globally

JUNE 2023



1 Industry Outlook



2 Domestic Demand – Supply Dynamics



3 Indian Sugar Exports



4 World Sugar Balance



5 Trend in Sugar Prices



6 Domestic Cane Production and Pricing



7 Forward Integration



8 Ethanol Blending with Petrol



9 Co-generation



10 Segment-wise Profitability Analysis



11 Industry Projections



12 ICRA Ratings in the Sector



13 Peer Comparison



14 Industry Aggregates





Click to Provide Feedback

Domestic sugar prices are expected to remain elevated with lower-than-expected output in India, European Union, China and Mexico. The El Nino risk on Asian production may also result in a price increase.

Domestic sugar prices (UP) stood at Rs. 36/kg in April – June 2023 post completion of the crushing season. International prices of raw and white sugar increased significantly in April-May 2023 compared to March 2023.



Sugar Production – Domestic sugar production stood at 32.31 million MT till June 15, 2023, for SY2023 against 35.24 million MT during the same period in the previous season. This was mainly due to lower cane yields and uneven distribution of rainfall in Maharashtra.



Sugar demand and closing stock – As per the latest ISMA estimates for SY2023, net sugar production is likely to remain at 32.8 million MT, post diversion of 4.0 million MT of sugar towards ethanol production. The Government allowed an export quota of 6.1 million MT for SY2023. With domestic sugar consumption expected at around 27.5 million MT and exports at 6.1 million MT in SY2023, the closing stock may be around 4.5 million MT as on September 30, 2023 (lower compared to the sugar stock of 5.3 million MT as on September 30, 2022). This would be equivalent to 2.0 months of consumption (PY: 2.3 months).



World sugar balance and international prices – The global sugar production for SY2022/23 stood at 177.3 million MT (2% lower than last year) as per USDA, however, consumption remained higher at a new record of 176 million MT in SY2022/23 (2% YoY growth). The global sugar production for SY2023/24 is expected to remain at 180 million MT (6% higher than last year), while the consumption is expected to remain higher at 180 million MT (2% higher than last year). International prices of raw sugar increased to \$568/MT in May 2023 compared to \$543/MT in April 2023, while prices of white sugar was up to \$707/MT in May 2023 compared to \$676/MT in April 2023. With rise in prices of raw and white sugar, the premium between white and raw sugar prices stood at \$140/MT in May 2023, slightly higher compared to \$133/MT in April 2023. This was mainly due to the deteriorating weather outlook coupled with rising demand.



Domestic sugar prices – Domestic sugar prices (UP) stood at Rs. 36/kg in April-June 2023, post completion of the crushing season wherein prices stood at Rs. 34/kg from January-March 2023. The domestic prices firmed up on the back of lower sugar production for SY2023. The average domestic prices for 9M SY2023 domestic sugar prices stood at Rs. 35.2/kg, slightly higher than previous year's prices for a similar period.

Operating profits may slightly improve in FY2024 supported by healthy sugar and ethanol realisations, even if there is increase in cane pricing.



Cane pricing – The sugarcane UP-SAP was hiked by Rs. 25/quintal (unchanged during SY2018-2021) for SY2022 and maintained at the same level in SY2023. Thus, for SY2022, UP-SAP was Rs. 350/quintal for the early maturing variety and Rs. 340/quintal for the normal variety and it had remained the same for SY2023. For SY2023, the FRP was increased by Rs. 15 to Rs.305/quintal or a basic recovery rate of 10.25%. Further, for SY2024, FRP has been increased by Rs. 10 to Rs. 315/quintal for a basic recovery rate of 10.25%.



Ethanol – Currently, average ethanol-blending as on June 04, 2023, stood at 11.68% and appears on track to reach 12% target for the ESY2023. In ESY2022, the ethanol-blending stood at 10.02%.



Revenues – The revenues of ICRA samples are expected to remain stable over FY2024-FY2026 supported by firmed up domestic and international sugar prices and improved ethanol realisations, in addition to healthy ethanol volumes expected, partially offset by lower sugar volumes.



Profitability – Operating margins are likely to remain in the range of 11.0%-12.0% in FY2024 (slightly higher from FY2023 levels) supported by improved sugar and ethanol realisations, even after increase in cane pricing.



Working capital and debt – Higher sucrose diversion towards ethanol going forward, coupled with comfortable exports prospects for SY2024, are likely to keep the inventory levels comfortable for most of the integrated sugar mills. Lower closing inventory and comfortable operating profits along with gradual repayment of distillery loans, would in turn allow the borrowings of ICRA's sample set to reduce in FY2024-FY2026, despite debt-funded capex under way for few of the players. With comfortable operating profits and reduced debt levels, the coverage metrics and capital structure would emerge stronger for the period.



Industry Outlook

ICRA's outlook on Indian sugar sector remains Stable

rahul.patni@icraindia.com 7/14/2023 11:52:27 AM

Domestic Sugar Production

1

Sugar production is expected at 32.8 million MT in SY2023 after considering sucrose diversion equivalent of around 4.0 million MT of sugar towards ethanol production from B-heavy molasses/ sugarcane juice (8% lower than SY2022). This is on account of lower cane yields and uneven distribution of rainfall in Maharashtra.

Domestic Sugar Prices

Domestic sugar prices (UP) stood at Rs. 36/kg in April-June 2023, post completion of the crushing season wherein prices stood at Rs. 34/kg from January-March 2023. With a balanced demand-supply situation globally and favourable price outlook, the price in domestic market is expected to remain healthy till the beginning of the next crushing season.

3

2

Sugar Closing Stock

With domestic sugar consumption expected at around 27.5 million MT and exports at 6.1 million MT in SY2023, the closing stock is expected to be around 4.5 million MT as on September 30, 2023 (lower than sugar stock of 5.3 million MT as on September 30, 2022). This would be equivalent to 2.0 months of consumption (PY: 2.3 months).

Government Support

Given the sugar surplus scenario, the continued Government support in the form of remunerative prices for ethanol, interest subvention loan for distillery capacity expansion, minimum support price (MSP) remains critical for the sector. Additionally, preponement of 20% ethanol-blending to 2025, offtake assurances through bipartite/ tripartite agreement between public sector OMCs, banks and distilleries coupled with facilitating policy framework, augur well for the sector.

4





FY2024 Outlook

OI



Stable to marginal growth

The revenues of ICRA's sample are expected to remain stable over FY2024-FY2026 supported by higher domestic and international sugar prices and improved ethanol realisations. Expected healthy ethanol volumes with many distillery capacities coming onstream would partly offset lower sugar volumes.

OPM



11.0%-12.0%

Operating margins are likely to remain in the range of 11.0%-12.0% in FY2024-FY2025 with firmed up sugar realisations and improved ethanol realisations. Changes in SAP and FRP in SY2024 to be monitorable.

ROCE



12.0%-13.0%

ROCE to stay at moderate levels owing to seasonal nature of operations, resulting in higher stock levels at the end of the fiscal and ongoing distillery expansions.

DEBT/OPBIDTA



1.2x – 2.0x

Reduced debt levels owing to sugar stock reduction despite debt-funded distillery capex plans coupled with healthy operating profits expected to support total debt/OPBIDTA.

INTEREST COVER



8.5x-10.0x

Healthy operating profits and reduced working capital borrowings would allow strengthening even as interest rates remain elevated; majority of long-term debt remains concessional.

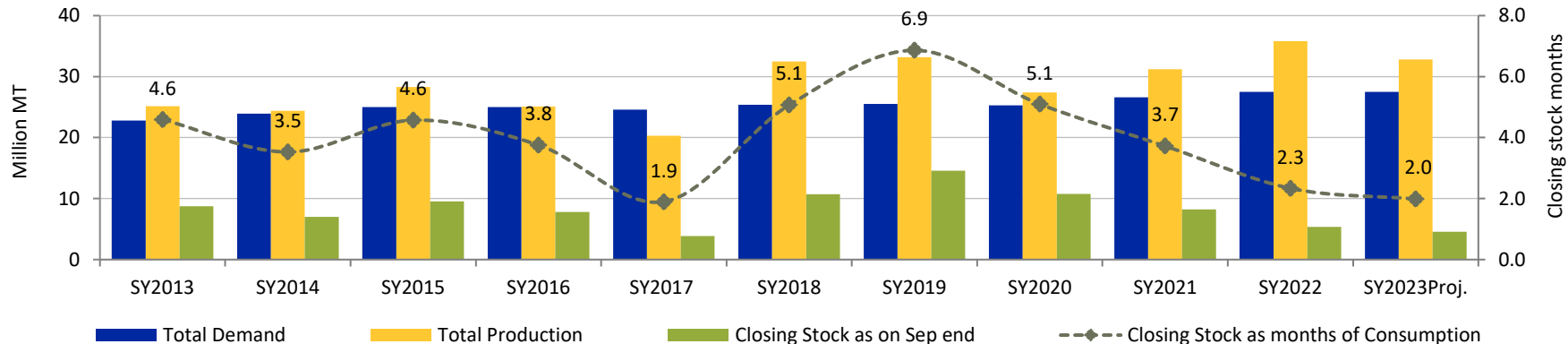


Domestic Demand-Supply Dynamics

ISMA's latest estimates point to gross sugar production of 36.8 mn MT in SY2023, against second Advance Estimates of 38.5 mn MT

Gross sugar production expected to moderate further in SY2023 as per the latest estimates by ISMA

Exhibit: Yearly trends in sugar production, consumption and closing stock

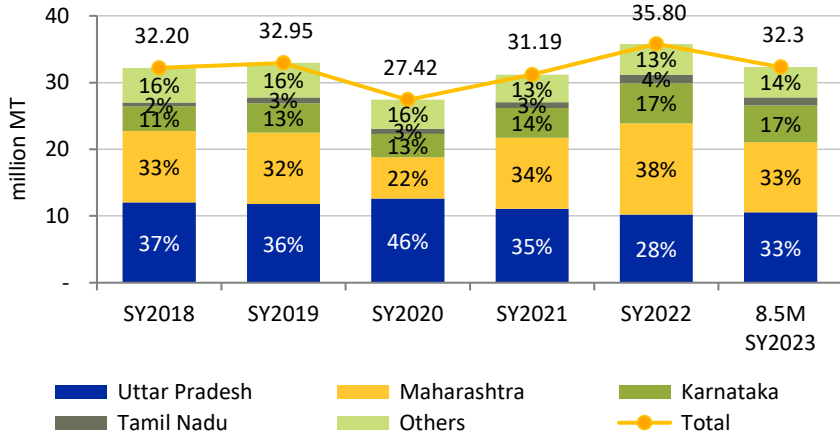


Source: ISMA, ICRA Research; SY: Sugar Year (from October 01 to September 30)

- ISMA preliminary estimates pointed to gross sugar production (without considering ethanol diversion) of around 41 million MT in SY2023. However, on account of prolonged rains in Maharashtra as well as select northern states, the yield may moderate against initial expectations, along with lower crushing days expected for Maharashtra and Karnataka. Therefore, as per second AE for SY2023 by ISMA, the net sugar production was expected to remain at 34.0 million MT, post diversion of 4.5 million MT of sugar towards ethanol production. As per the latest estimates by ISMA, the net sugar production is expected to moderate further to 32.8 million MT post diversion of 4.0 million MT of sugar towards ethanol production.
- Domestic sugar production stood at 32.3 million MT till June 15, 2023, for SY2023 (lower by 8%) against 35.2 million MT during the same period in the previous season. This was mainly due to lower cane yields and uneven distribution of rainfall in Maharashtra.

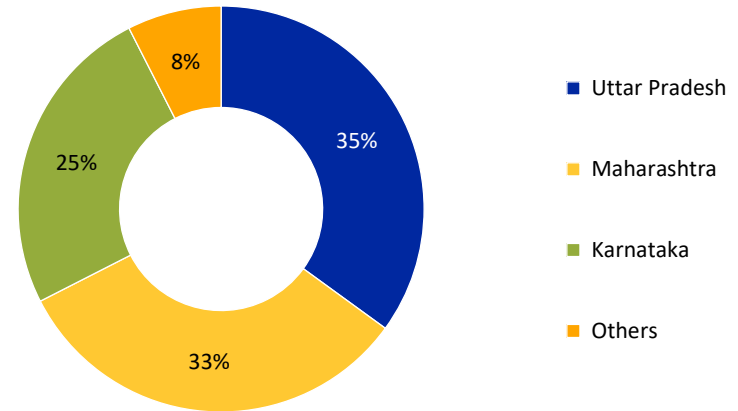
Moderation of production in Maharashtra in SY2023

Exhibit: State-wise sugar production yearly trend



Source: ISMA, ICRA Research

Exhibit: State-wise sucrose scarifies towards ethanol for SY2023: 4.0 million MT



Source: ISMA, ICRA Research

- Domestic sugar production stood at 32.3 million MT till June 15, 2023, for SY2023 (lower by 8%) against 35.2 million MT during the same period in the previous season. This was mainly due to lower cane yields and uneven distribution of rainfall in Maharashtra.
- The contraction in production was primarily driven by lower crushing days in Maharashtra with production declining by 23% compared to the same period in the previous season.
- The highest sucrose diversion towards ethanol is estimated from U.P. at 1.4 million MT, followed by Maharashtra at 1.3 million MT and Karnataka at 1.0 million MT in SY2023.



Indian Sugar Exports

6.1 million MT exports permitted

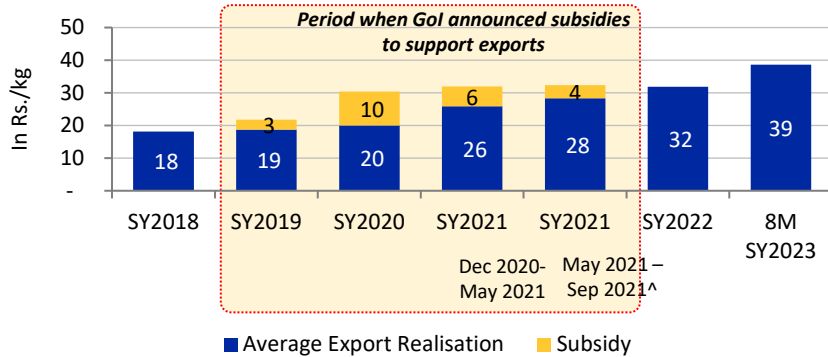
rahul.pami@icraindia.com 7/14/2023 11:52:27 AM

Indian sugar export policy for past four years

	SY2020 (MAEQ)	SY2021 (MAEQ)	SY2022 (MAEQ)	SY2023 (MAEQ)
Scheme	Export Quota – 6 million MT	Export Quota – 6 million MT	Export Quota – 11.2 million MT	Export Quota – 6.1 million MT
Outlay	Rs. 6,268 crore Subsidy – Rs. 10,448/MT of sugar exported	Rs. 3,500 crore Subsidy – Rs. 6,000/MT of sugar contracted till May 20, 2021, Rs. 4000/MT with effect from May 2021	NIL Subsidy – No subsidy announced in light of healthy international prices	NIL Subsidy – No subsidy announced in light of healthy international prices

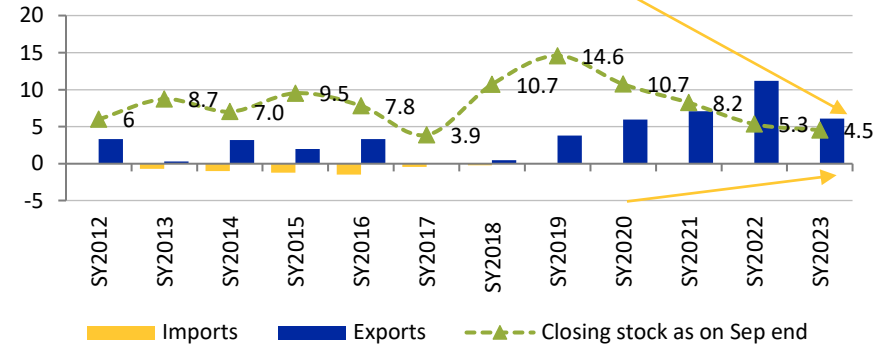
Healthy export realisations witnessed in 8M SY2023, also aided by favourable mix

Exhibit: Export Realisation and Subsidy



Source: CCEA, ISMA, ICRA Research; * For mills located other than coastal areas, ^ quantity contracted under this scenario was very low; Realisations indicative of raw sugar

Exhibit: Trend in Sugar international trade

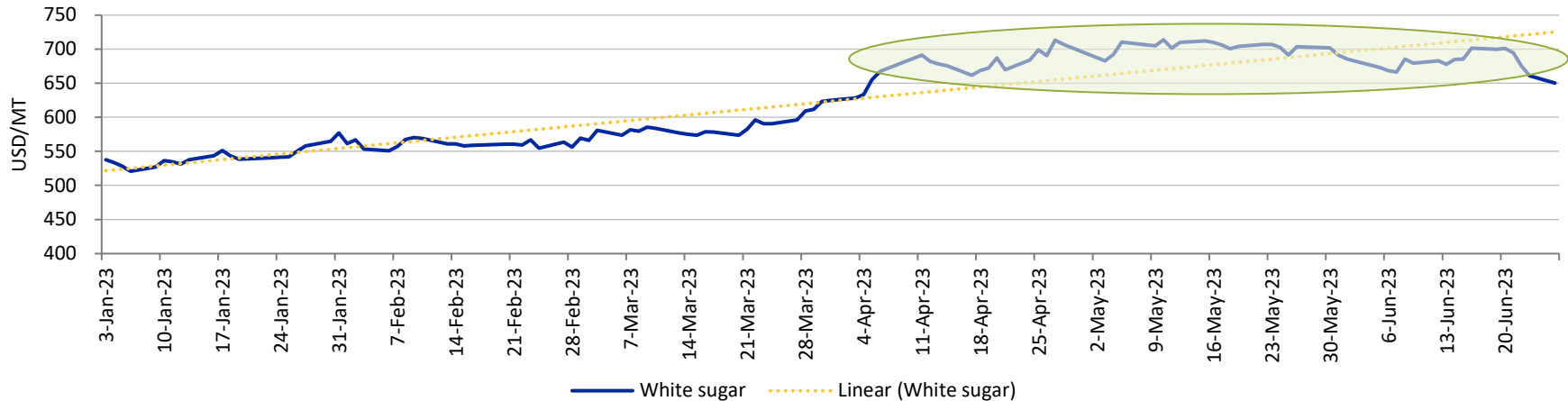


Source: CCEA, ISMA, ICRA Research

- The Government had an export quota of 11.2 million MT for SY2022 that in turn resulted in substantial destocking in India. For SY2023, the export policy permits export of 6.1 million MT that would keep closing stock levels at an optimum level. This would further help in maintaining domestic sugar prices, which would also support the liquidity of sugar mills.
- To make exports viable, allow timely stock liquidation and consequently maintain the domestic sugar demand-supply balance, the Government had announced subsidies for SY2019-SY2021. However, currently, with the firmed up international prices, the Indian sugar industry has contracted for record high exports for the ongoing sugar season without any export subsidy.
- As per discussions with industry players, many companies contracted sizeable exports of whites/ refined that would allow favourable realisations in SY2023. This transpired from reduced EU + UK beet production levels on account of adverse weather conditions. Besides, higher fuel prices weighed on refinery operations.

Firmed up international prices make exports lucrative for Indian mills

Exhibit: Weekly trends in white sugar prices

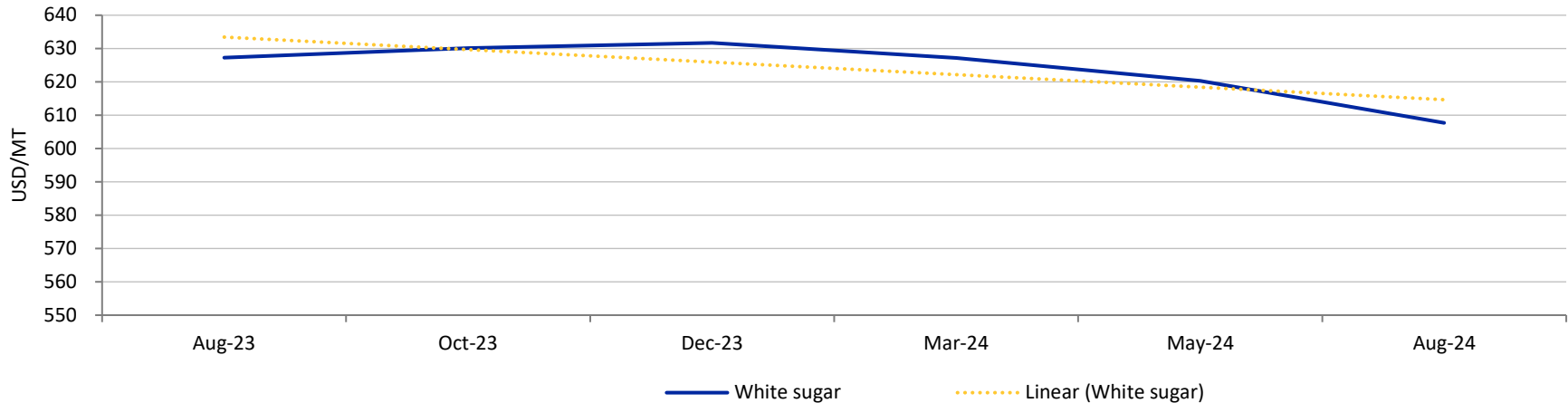


Source: International Sugar Organisation; *Except for the sugar exported to EU and USA under CXL and TRQ quota

- The international prices of white sugar reached to US\$707/MT in May 2023, thereby making exports lucrative for Indian mills. The current international prices are supported by the balanced demand-supply situation globally, wherein sugar production and consumption is expected to remain slightly higher compared to the previous fiscal. The world closing inventory is expected to moderate in SY2023.
- As per ICRA's interaction with select Indian players, around 40-60% of their export volumes have been for white/ refined sugar (30-40% in previous year) that enriched the blended realisation from exports for these players.

Elevated international prices may sustain till December 2023

Exhibit: Futures trends in white sugar prices



Source: ICRA Research

- The international prices of white sugar are expected to remain elevated as pointed by the future contract prices on the back of global demand-supply balance. It is expected to remain firmed up till December 2023, with gradual decline expected post March 2024.

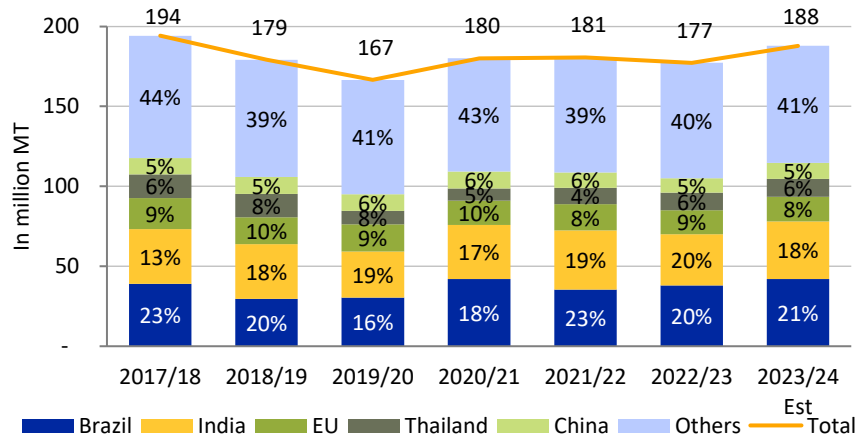


World Sugar Balance

Global production is estimated to remain higher by 6% YoY in SY2023/24 supported by higher production in Brazil and India

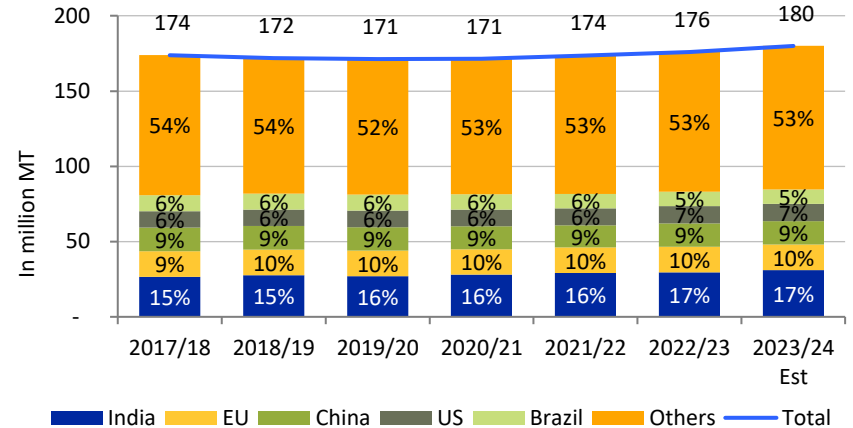
World sugar production expected to increase in SY2023/24

Exhibit: World sugar production (raw sugar)



Source: US department of Agriculture (USDA) – May 2023

Exhibit: World sugar consumption (raw sugar)



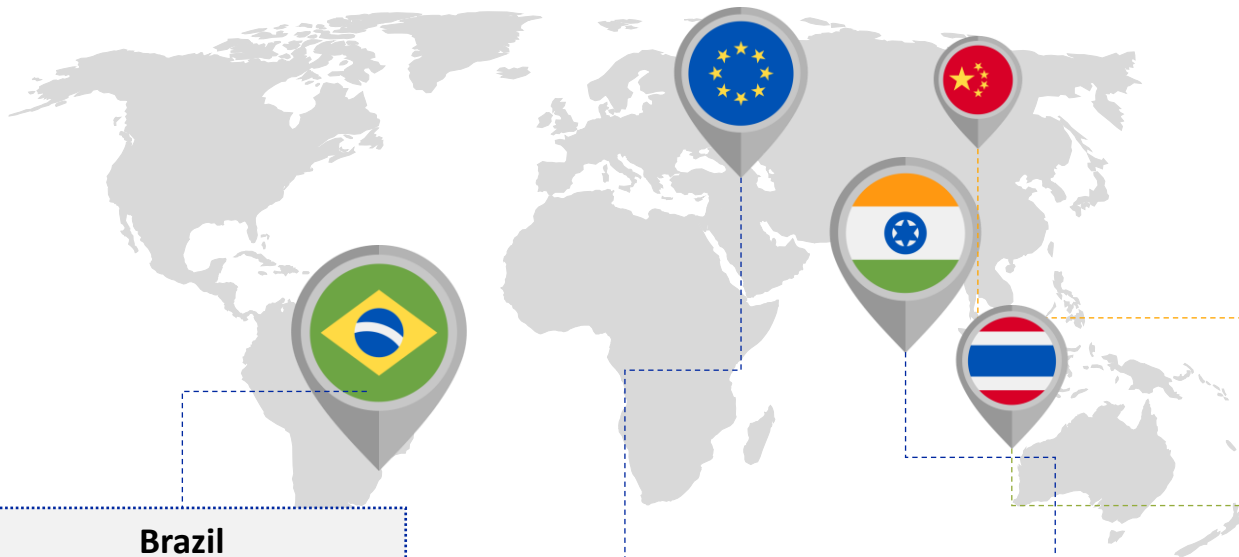
Source: USDA – May 2023

- With an annual production of 35-40 million MT, Brazil is traditionally the largest sugar-producing country followed by India. The USDA forecasts global sugar production to remain higher than previous year levels - at 188 million MT in SY2023/24 supported by higher production expectations from Brazil, India, China and European Union, despite the decline in production from Russia.
- The USDA expects world's consumption to rise to a new record of 180 million MT in SY2023/24 (2% YoY growth) due to higher demand in markets such as India and Pakistan.

Note: Sugar year varies from country to country.

rahul.patni@icraindia.com 7/14/2023 11:52:27 AM

Key sugar-producing countries



Brazil

Brazil – Increase of 10% YoY to 42 million MT owing to higher cane availability supported by favourable weather and increase in harvested area. Further, sugar: ethanol production mix is expected at 48:52 will favor sugar relative to the previous season which was at 45:55.

European Union

European Union – To increase by 4% YoY to 15 MMT with rebound of sugarbeet production.

India

India – Increase of 13% YoY to 36 MMT expected owing to higher sugarcane area and better yields.

China

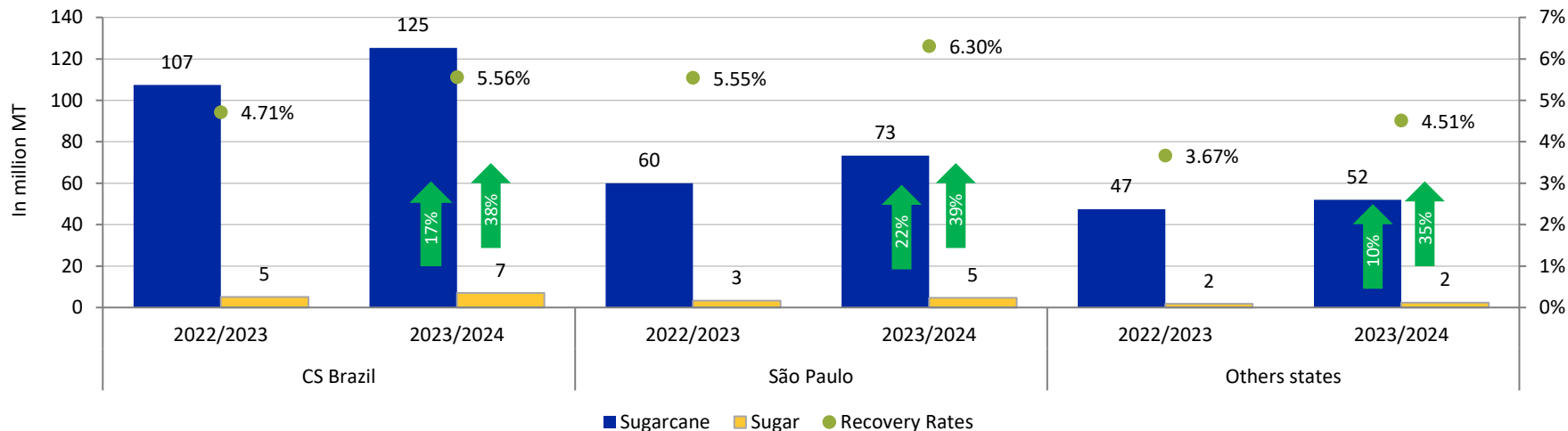
China – Growth of 11% to 10 million MT owing to favourable weather resulting in higher sugarcane yields.

Thailand

Thailand – Slight increase by 1% YoY to 11 MMT

CS Brazil sugar production increases in SY2023/24

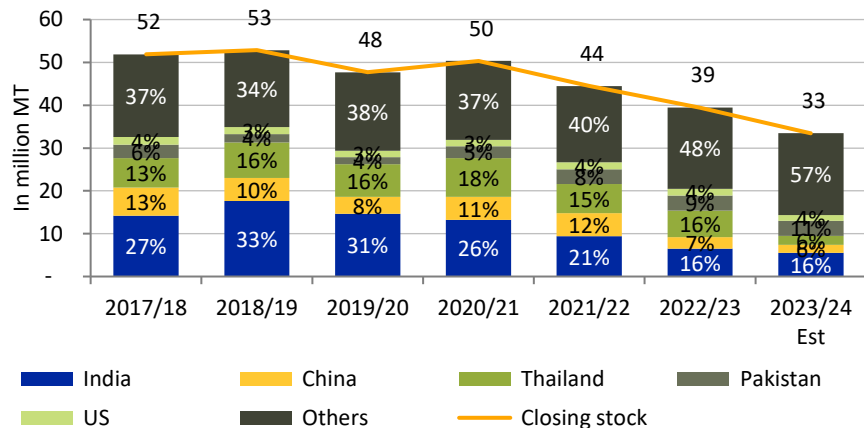
Exhibit: Region wise Sugarcane and Sugar Production for last and ongoing sugar season (April 1, 2023- May 01, 2023)



- UNICA reported an increase in both sugarcane and sugar production by 17% and 38% YoY for April 01, 2023 - May 01, 2023, respectively in South-Central region of Brazil (CS Brazil) which contributes over 90% of total Brazilian production. This was on account of higher cane availability supported by favourable weather and increase in harvested area. The increase in sugar production was higher than the increase in sugarcane production on account of better yield in ongoing crushing season. The share of ethanol in CS Brazil declined to ~53% for April 01, 2023 - May 01, 2023 (PY:60%). This also resulted in higher recovery rates of 5.6% in the current season (PY: 4.7%). The USDA and the UNICA forecasts an increase in Brazilian sugar production on a YoY basis.

World sugar exports likely to remain stable while closing stock may decline

Exhibit: World sugar export (in million MT – raw sugar)



Source: USDA, ICRA research

Exhibit: World closing stock



Source: USDA, ICRA research

- World sugar export is expected to be at 72 million MT in SY2023/24 (9% higher than last year) with the largest exporter being Brazil, followed by Thailand and India.
- The world closing inventory is expected to reduce in SY2024, thereby, supporting the global sugar prices in the near term. While the overall production is expected to improve by 6% YoY, the consumption is expected to increase by 2% YoY.

Note: Sugar year varies from country to country.

rahul.patni@icraindia.com 7/14/2023 11:52:27 AM

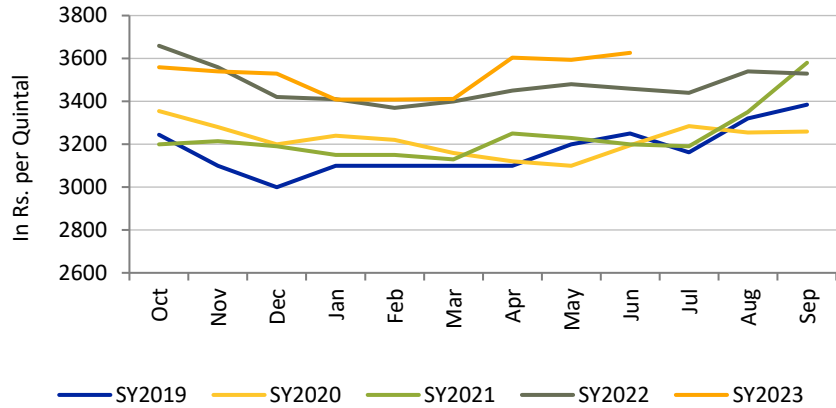


Trends in Sugar Prices

Both domestic and international prices remain elevated currently with favourable demand-supply balance

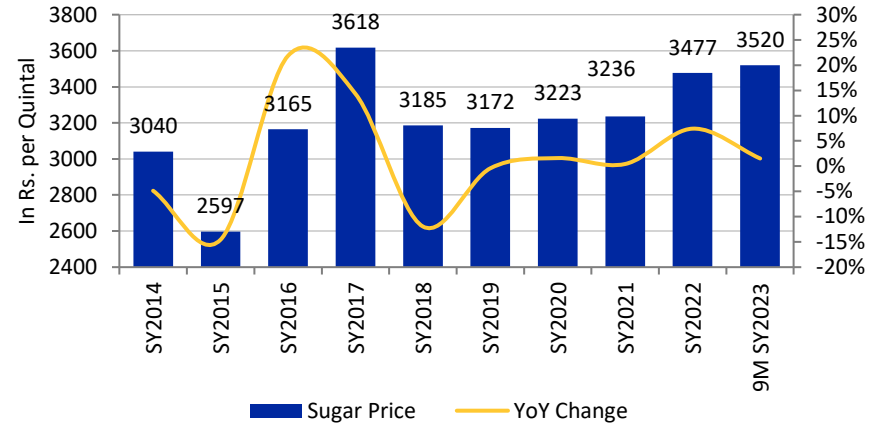
Domestic sugar prices firmed up post crushing season

Exhibit: Monthly trends in domestic sugar prices (UP ex-mill)



Source: ICRA Research

Exhibit: Yearly trends in domestic sugar prices (UP ex-mill)

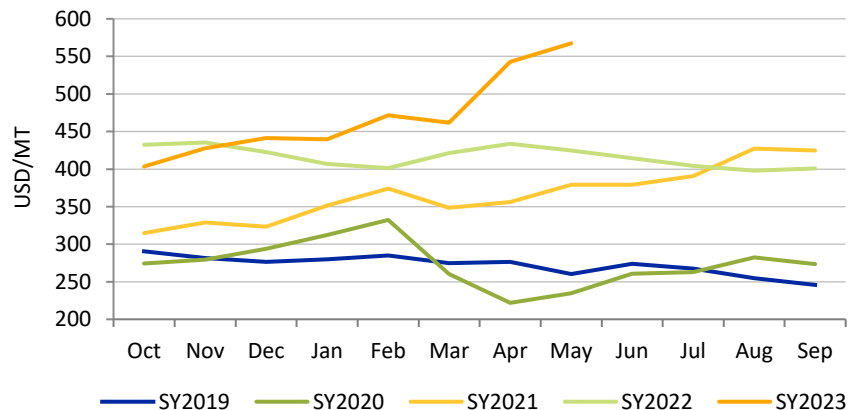


Source: ICRA Research

- Domestic sugar prices (UP) stood at Rs. 36/kg in April-June 2023 post completion of crushing season wherein prices stood at Rs. 34/kg from January-March 2023. The domestic prices firmed up on the back of lower sugar production for SY2023.
- The average domestic sugar prices for SY2022 were around 7% YoY higher at ~Rs. 34.8/kg (PY: ~Rs. 32.4/kg) following the improved domestic sugar balance compared to the last sugar season. For 9M SY2023 domestic sugar prices stood at around Rs. 35.2/kg, in line with previous year's prices for a similar period.

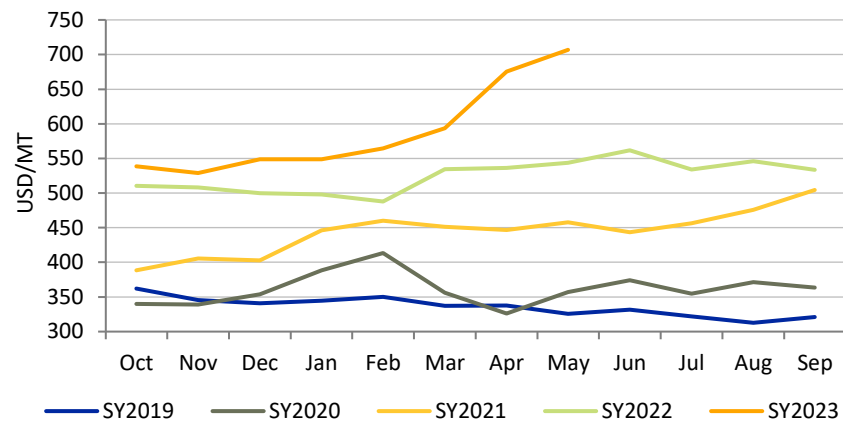
Sugar prices highest in last five years amid geopolitical tensions

Exhibit: Trends in raw sugar prices



Source: USDA, ICRA Research

Exhibit: Trends in white sugar prices



Source: USDA, ICRA Research

- International prices of raw sugar increased to \$568/MT in May 2023 compared to \$543/MT in April 2023, while prices of white sugar increased to \$707/MT in May 2023 compared to \$676/MT in April 2023.
- With increase in prices of raw and white sugar, the premium between white and raw sugar prices stood at \$140/MT in May 2023, slightly higher compared to \$133/MT in April 2023. This was mainly due to the deteriorating weather outlook coupled with rising demand. Sharp downward crop revisions were noticed in key producing countries like India followed by poor European beet crop due to extreme weather conditions. Further, rains in south-central region of Brazil, which accounts for majority of the country's production, resulted in delayed harvest in April 2023. El Nino risk on Asian production may also result in a price increase.



Domestic Cane Production and Pricing

Uneven distribution of rainfall led to moderation in yields for SY2023 against initial expectations

Cane Pricing in major sugar-producing states

States to follow
State Advised Price (SAP)

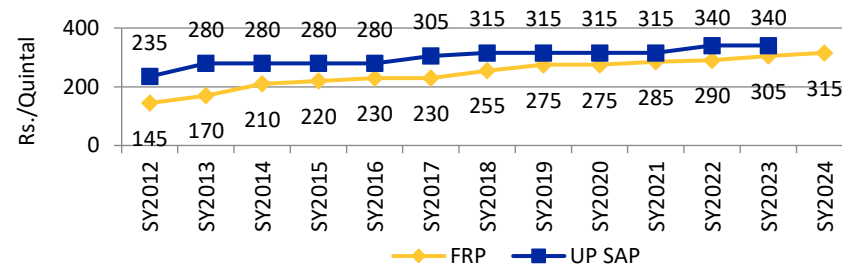
UP, Uttaranchal, Punjab,
Haryana

States to follow
Fair Remunerative Prices (FRP)

Maharashtra, Gujarat, Tamil
Nadu, Karnataka, Andhra
Pradesh, Bihar

- The sugarcane UP-SAP was hiked by Rs. 25/quintal (unchanged during SY2018-2021) for SY2022. Thus, for SY2022, UP-SAP was Rs. 350/quintal for the early maturing variety and Rs. 340/quintal for the normal variety and continued to remain same for SY2023. The FRP for SY2023 was increased by Rs. 15 to Rs.305/quintal from Rs.290/quintal for a basic recovery rate of 10.25%. Further, for SY2024, FRP has been increased by Rs. 10 to Rs. 315/quintal for a basic recovery rate of 10.25%.
- While the industry can absorb the hiked prices with current favourable sugar pricing scenario and increased ethanol prices for Ethanol Supply Year (ESY) 2023 along with planned higher diversion towards ethanol, the sustainability of firmed-up domestic prices and thus, the operating margin of sugar mills, would critically depend on the industry's ability to manage the inventory position.

Exhibit: Trends in Cane Prices



Source: ISMA, ICRA research, Cabinet Committee of Economic Affairs – CCEA

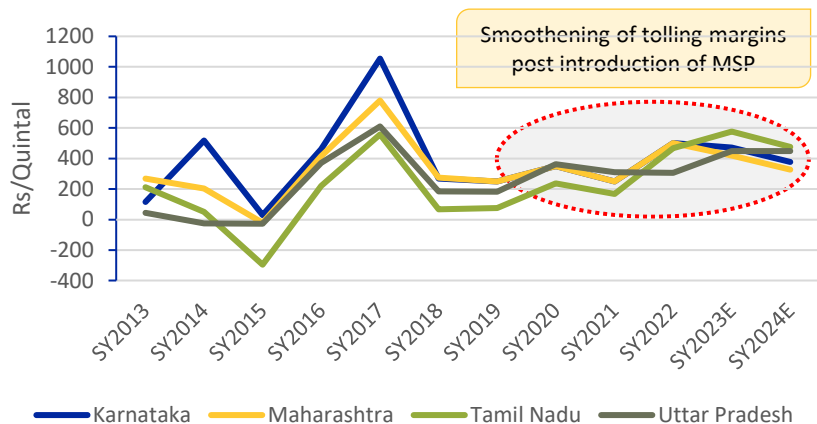
Exhibit: FRP fixed by Central Government

	SY2021	SY2022	SY2023	SY2024
Base price linked to recovery of 10%/10.25% for SY2023 and SY2024	Rs. 285 per quintal	Rs. 290 per quintal	Rs. 305 per quintal	Rs. 315 per quintal
Premium: for every 0.1 percentage point increase in recovery above 10%/10.25% for SY2023 and SY2024	Rs. 2.85 per quintal	Rs. 2.90 per quintal	Rs. 3.05 per quintal	Rs. 3.07 per quintal

Source: Cabinet Committee of Economic Affairs - CCEA

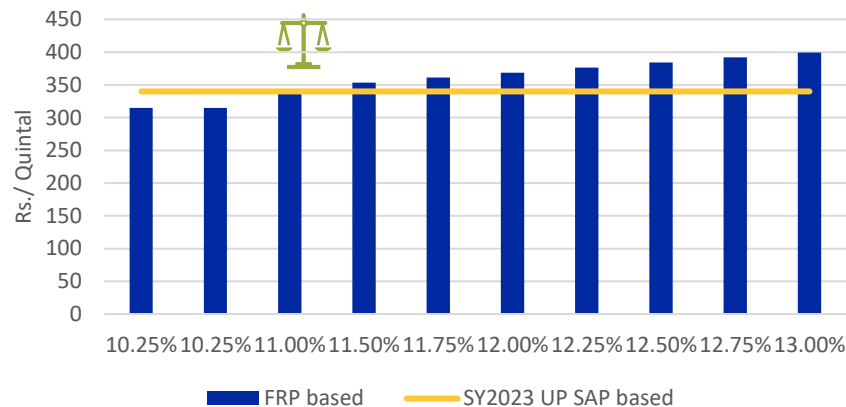
Tolling margins improved for majority states with elevated sugar realisations

Exhibit: Trend in tolling margins for U.P.



Source: ICRA Research; Tolling margins are based on recovery rates unadjusted for B-heavy molasses

Exhibit: Landed Cane cost at various recovery rates for SY2023



Source: ICRA Research, CCEA

- Increase in FRP was announced for SY2024 by Rs. 10/quintal compared to SY2023 for recovery rate of 10.25%; while for UP-SAP no change has been announced for SY2024. Tolling margins for three states – Maharashtra, Karnataka and Tamil Nadu in SY2023 are expected to moderate slightly compared to SY2023 with increase in cane costs though the same remains supported by healthy sugar realisation, while tolling margins at UP for SY2024 may remain similar at SY2023 levels.
- Prior to the MSP, mills' profitability remained vulnerable to a sharp decline in sugar prices during the downturn, however, with the introduction of MSP since SY2018, the volatility in the tolling margins reduced, especially during unfavourable swings.







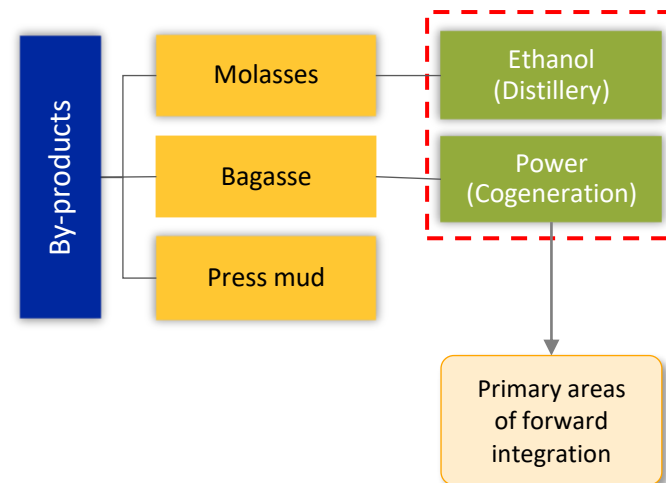
Forward Integration

Forward integration remains a key flavour for sugar business on path to sustainability

Forward-integrated units provide profitability cushion during sugar downturn

Exhibit: Forward integration profile of select companies

			
Company	Sugar (TCD)	Cogen (MW)	Distillery (KLPD)
Balrampur Chini Mills Ltd. (BCML)	77,500	254.6	1050
Triveni Engineering & Industries Ltd. (TEIL)	61,000	104.5	660
Dalmia Bharat Sugar & Industries Ltd. (DBSIL)	39,500	123	710
Dhampur Sugar Mills Ltd. (DSML)*	23,500	121	450
Bajaj Hindusthan Sugar Ltd. (BHL)	136,000	449	800
Shree Renuka Sugars Ltd. (SRSL)	37,500	567	1250
EID Parry India Ltd. (EIDL)	40,300	140	417
Magadh Sugar and Energy Limited (MSEL)	19,000	38	150
Avadh Sugar and Energy Limited (ASEL)	31,800	74	325



Source: ICRA Research, Companies' data

TCD: Tones of cane crushed per day, MW: Megawatt; KLPD: Kilo litres per day, *Reduced capacity post demerger



Ethanol Blending with Petrol

India maintains over 10% blending target in YTD ESY 2023

rahul.patni@icraindia.com 7/14/2023 11:52:27 AM

Ethanol-blending programme in India

2001



Govt. launched pilot project, 5% ethanol blended petrol was supplied to retail outlets

2003



Launched Ethanol Blending Petrol (EBP) for sale of 5% ethanol blended petrol in 9 states and 4 UTs.

2006



Extended 5% EBP to 20 states and 4 UTs. OMCs were asked to sell 5% ethanol blended petrol

2019



- 1) Extension of EBP to whole of India except Andaman Nicobar and Lakshadweep Island;
- 2) Sugar & sugar syrup allowed for ethanol production.



- 1) Allowed conversion of B-heavy molasses, sugarcane juice and DFG to ethanol with differential prices; 2) interest subvention announced

2014



Introduced administrated price mechanism for ethanol to be procured under EBP programme

2020



- 1) OMCs enhanced ethanol storage capacity to 17.8 crore litre in Dec 2020 (5.39 crore litre in Nov 2017);
- 2) OMCs started to provide offtake guarantee letter and consent to tripartite agreement with ethanol suppliers and bankers for capacity expansions



Interest subvention scheme extended to grain-based distilleries and distilleries using other feedstock such as sorghum, sugar beet etc. Interest expressed by OMCs for sourcing under bipartite agreements and companies shortlisted

2021

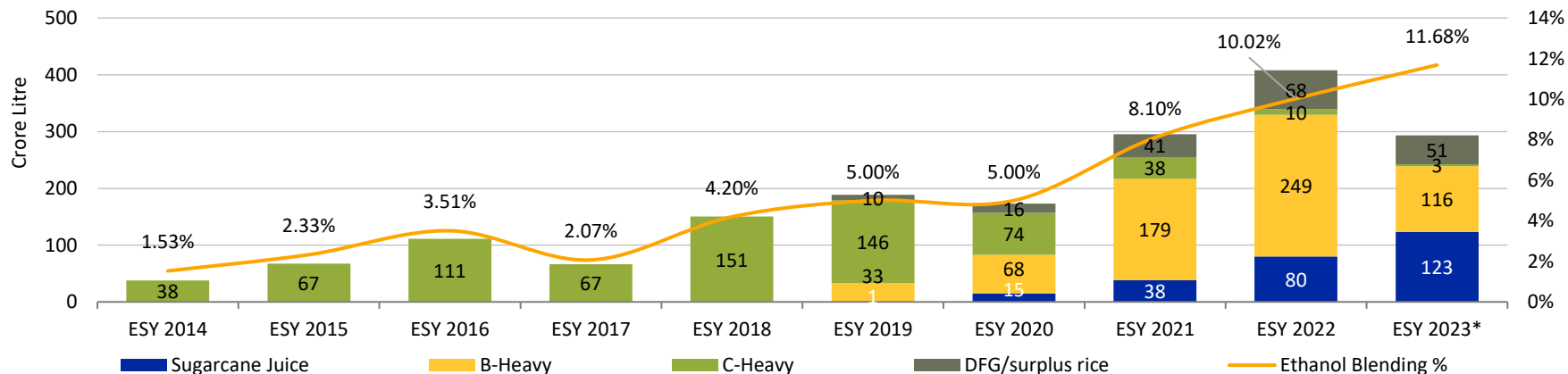
2022



- 1) Additional differential excise duty of Rs. 2 per litre has been introduced on unblended fuel effective October 1, 2022 to encourage usage of blended fuel
- 2) 100% incentive to mills for domestic quota allocation

India achieves ethanol-blending target ahead of schedule

Exhibit: Trend in ethanol blending percentage and OMCs receipt volumes (feedstock wise)



- India achieved the target of 10% ethanol blending ahead of schedule in June 2022. For ESY2022, average ethanol blending stood at 10.02%. The Government had advanced the target to achieve 20% ethanol blending by 2025 (preponed from 2030). In ESY2023, India is expected to achieve the blending target of 12%.
- For ESY2022, around 463-crore litre of ethanol has been contracted of the 460-crore-litre letter of intent (LoI) offered (i.e., ~101% of LoI has been contracted).
- Considering the feedstock-wise contribution, the share of sugarcane juice and B-heavy molasses, together, stood at 78% of the contracted and 81% of the receipts during the period.
- For YTD ESY2023 (till June 04, 2023), around 528-crore litre of ethanol has been contracted of the 534-crore-litre letter of intent (LoI) offered (i.e., ~99% of LoI has been contracted). Considering the feedstock-wise contribution, the share of sugarcane juice and B-heavy molasses, together, stood at 71% of the contracted and 81% of the receipts during the period.

*Till Jun 04, 2023; DFG: Damaged Food Grains; OMCs: Oil Marketing Companies; ESY: Ethanol Supply Year (From Dec 1 to Nov 30); Source: ISMA, MoPNG, Niti Ayog, ICRA Research

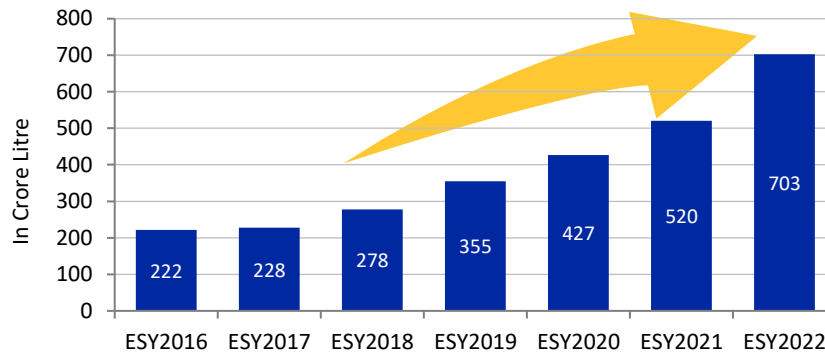
Relief announced by OMCs for ethanol supplies – indicates Government’s focus

Exhibit: Ethanol prices excluding taxes and transportation cost (Rs./litre)

Feedstock	ESY2021	H1 ESY2022	H2 ESY2022*	ESY2023
Sugarcane Juice	62.65	63.45	65.05	65.61
B-Heavy molasses	57.61	59.08	60.57	60.73
C-Heavy molasses	45.69	46.66	47.84	49.41
Damaged Food Grain	51.55	52.92	55.26	55.54
Surplus Rice	56.87	56.87	58.31	58.50

Source: ISMA, MoPNG, ICRA Research, *including relief amount (effective during Jun 1, 2022-Nov 30, 2022)

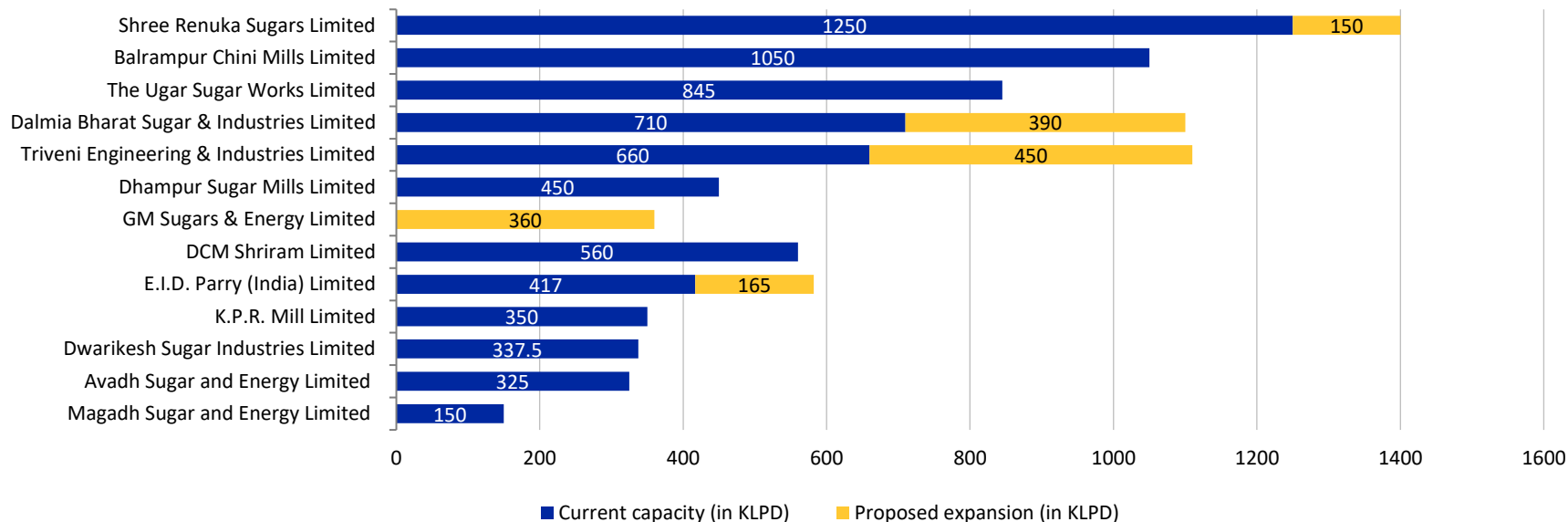
Exhibit: Ethanol Capacities (molasses based)



Source: ISMA, ICRA Research, * As on January 31, 2023

- The CCEA increased the basic price of ethanol produced from C-heavy, B-heavy molasses and sugarcane juice by Rs. 2.75/ litre (or 5.9%), Rs. 1.65/litre (or 2.8%) and Rs. 2.16/litre (or 3.4%), respectively, for the ethanol supply year starting December 2022. The prices are slightly higher than the relief amount announced by the OMCs and this would support the margin profile of integrated sugar companies by allowing absorption of higher cane cost.
- The Government’s focus on ethanol blending in addition to remunerative ethanol prices would allow the mills to increase diversion of molasses/ sugarcane juice towards ethanol production. This would in turn control sugar supply in the domestic market while improving the profitability metrics and liquidity position and reducing the country’s reliance on exports.

Sizeable capacity commences/final phases for SY2023



Preponement on blending target of 20% from 2030 to 2025, enabling financing, assured offtake (bipartite/ tripartite schemes of the OMCs), favourable working capital cycle benefits for sugar and distilleries along with incentive on sugar sacrificed for producing ethanol - are triggering sizeable investments. Further, the GoI also envisaged an investment of Rs. 10,000 crore to set up 12 bio-refineries across the country by the OMCs.

12 states at higher-than-all-India average in ethanol blending ahead of timeline

Exhibit: Ethanol blending as on February 26, 2023 (All India average = 11.41%)

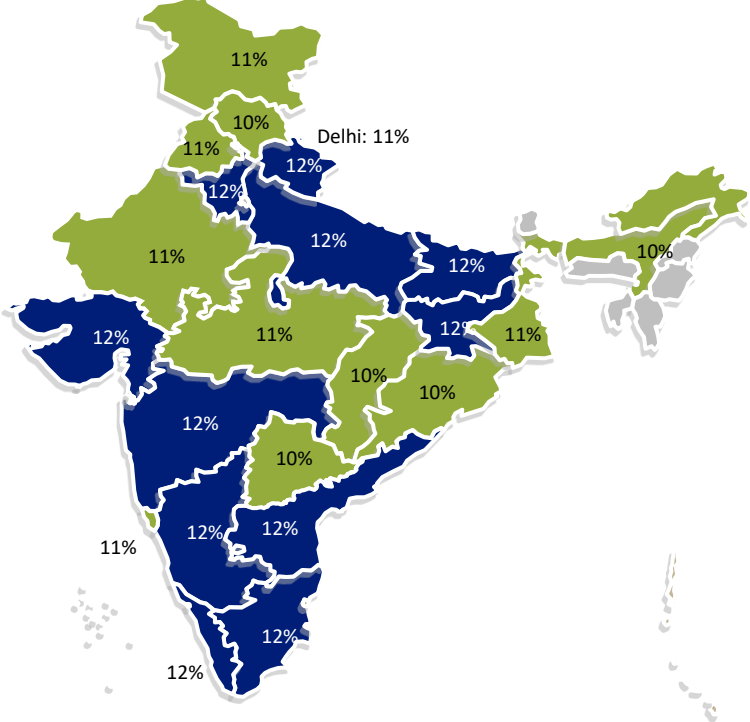
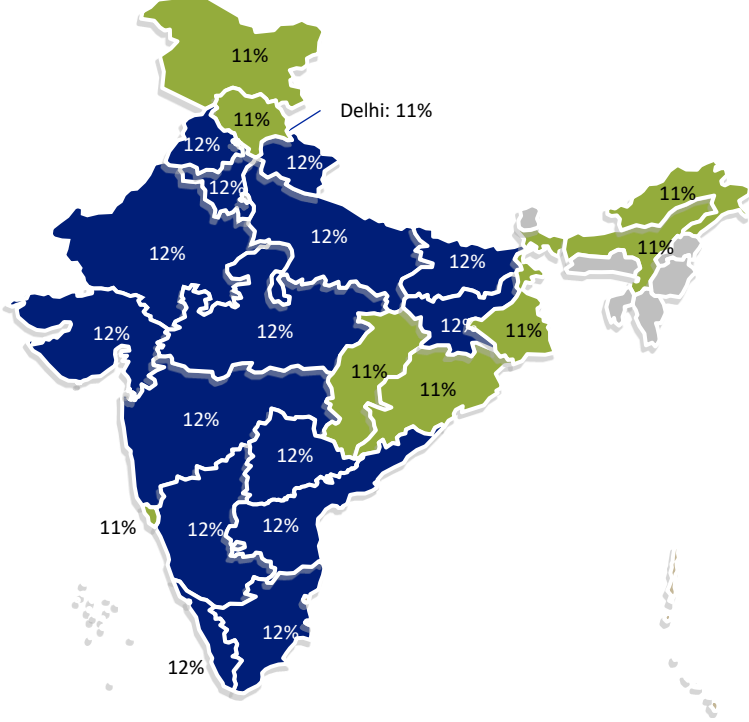


Exhibit: Ethanol blending as on June 04, 2023 (All India average = 11.68%)



Steady increase in ethanol supply from ESY2020 to ESY2022

Exhibit: Yearly sector wise ethanol supply quantity against the planned quantity

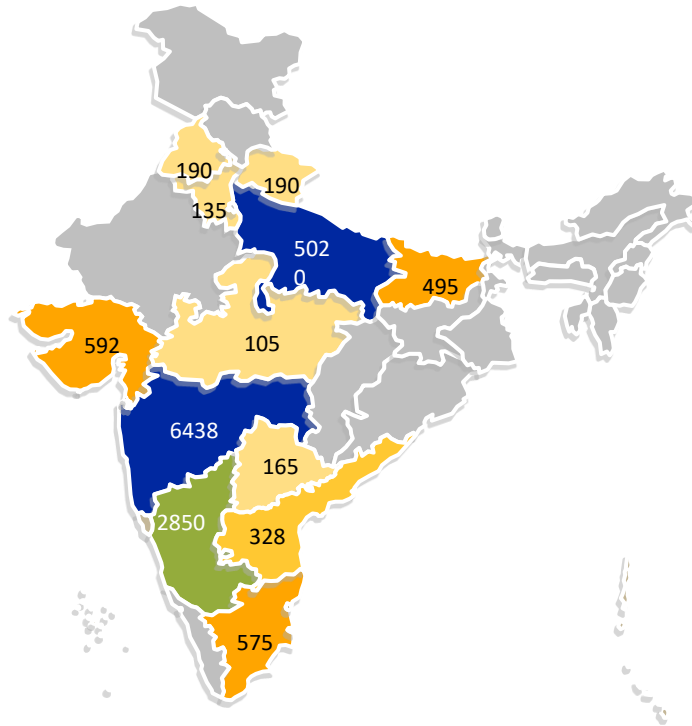
ESY	Planned Quantity (in crore liters)			Blending (in %)	Supply Quantity (in crore liters)		
	Grain	Sugar	Total		Grain	Sugar	Total
2020	16	157	173	5.0	16	157	173
2021	51	320	371	8.1	40	255	295
2022	83	377	460	10.0	68	340	408
2023	125	475	600	11.5	152 (51)	383 (242)	534* (293)**

Source: ISMA, *LOI quantity as on June 04, 2023, **Supply quantity as on June 04, 2023

- In light of preponement of 20% blending targets by Government to 2025, various large sugar mills increased their distillery capacities in recent months that would lead to increase in ethanol supply. In ESY2023, India is expected to achieve the blending target of 12%.

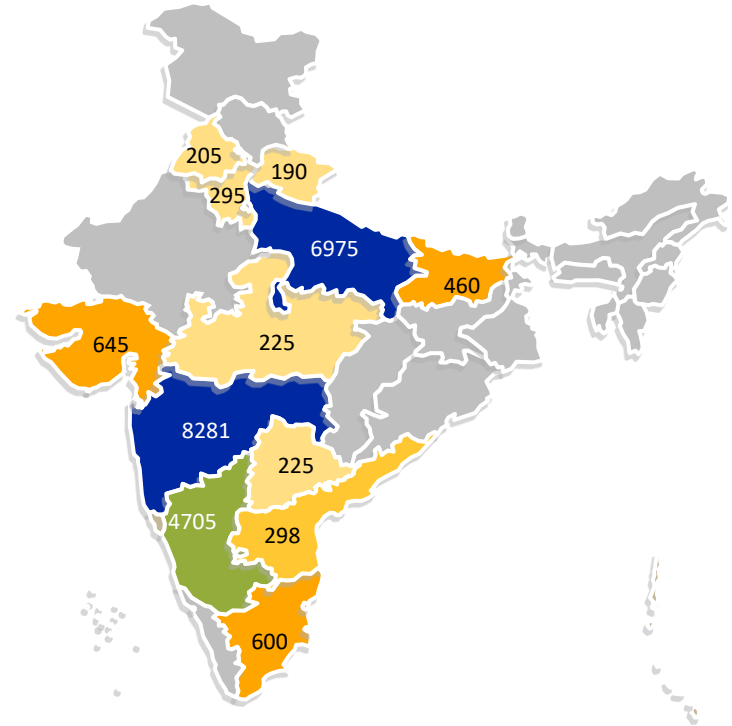
Maharashtra leads the ethanol capacity, followed by UP

Exhibit: Estimated state-wise molasses-based ethanol capacity (in KLPD) as on September 30, 2021



Source: ISMA

Exhibit: Estimated state-wise molasses-based ethanol capacity (in KLPD) as on January 31, 2023



rahul.patni@icraindia.com 7/14/2023 11:52:27 AM



Indian Sugar Mills

It provides sustainable solution for sugar over-supply which would also support the domestic sugar prices in addition to improving liquidity with prompt payment from OMCs, better stability of profits as well as product diversification.



Farmer's Income

Improved liquidity of mills would allow them to clear cane dues faster than ever. Additionally, it would benefit maize and paddy farmers.



Air Quality: Restricts Vehicular Emissions

One crore litre of ethanol blended petrol can save around 20,000 tonne of carbon dioxide (CO₂) emission. Greenhouse gas emissions due to the EBP Programme were lowered by 192 lakh tonne from 2014 to 2021 (up to July 2021).



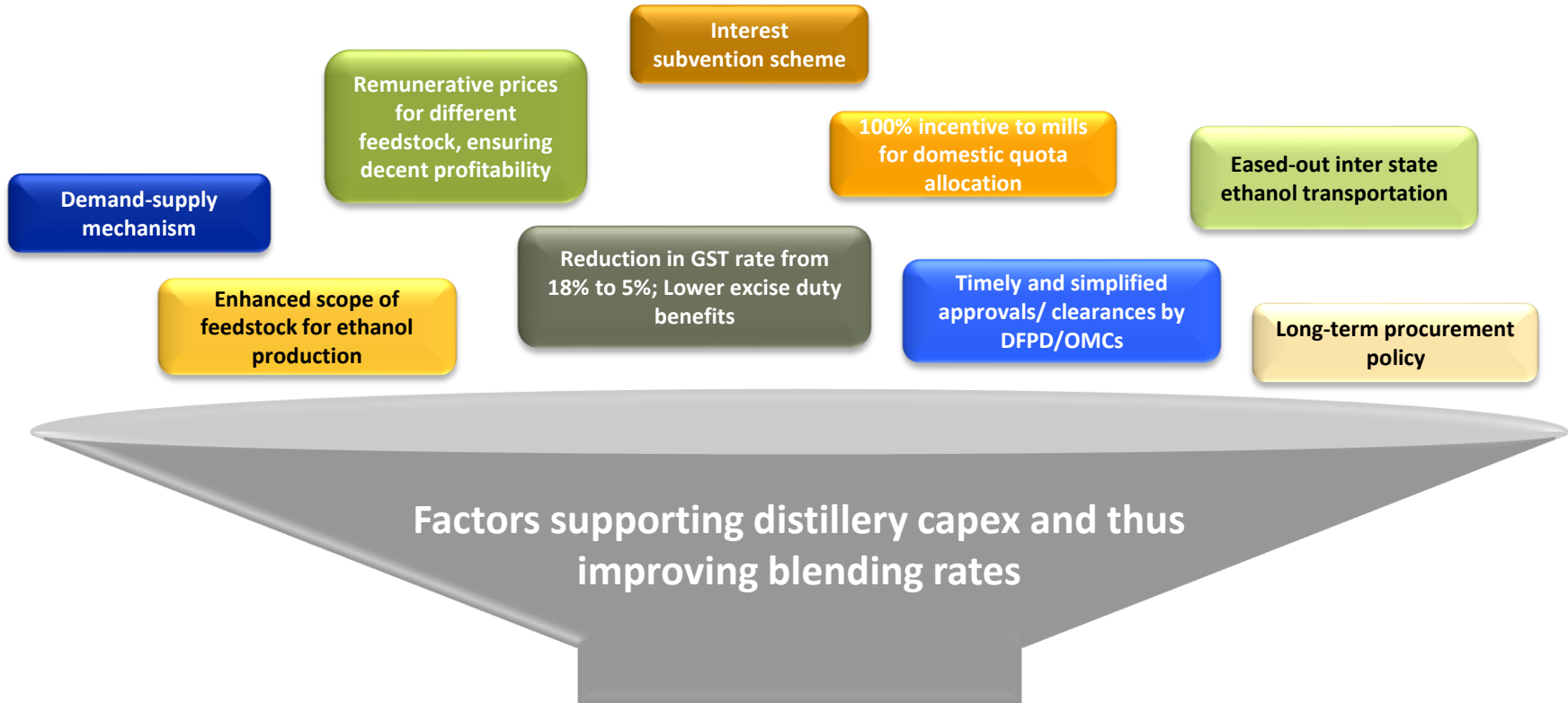
Atmanirbhar Bharat: Reduced Oil Import Bill

Replaces petrol with domestically-produced ethanol; saves foreign exchange. As per Govt's estimates, a successful E20 programme can save the country US\$4 billion per annum (Rs. 30,000 crore).



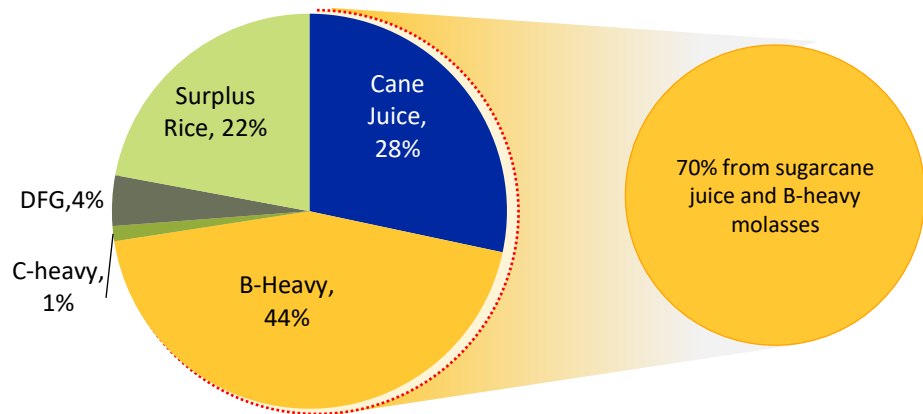
New Investment Opportunities

With increasing investment in both cane-based and grain-based distilleries, new jobs are being created in rural areas.



Sugarcane juice and B-heavy molasses-based ethanol supplies decline in ESY 2023

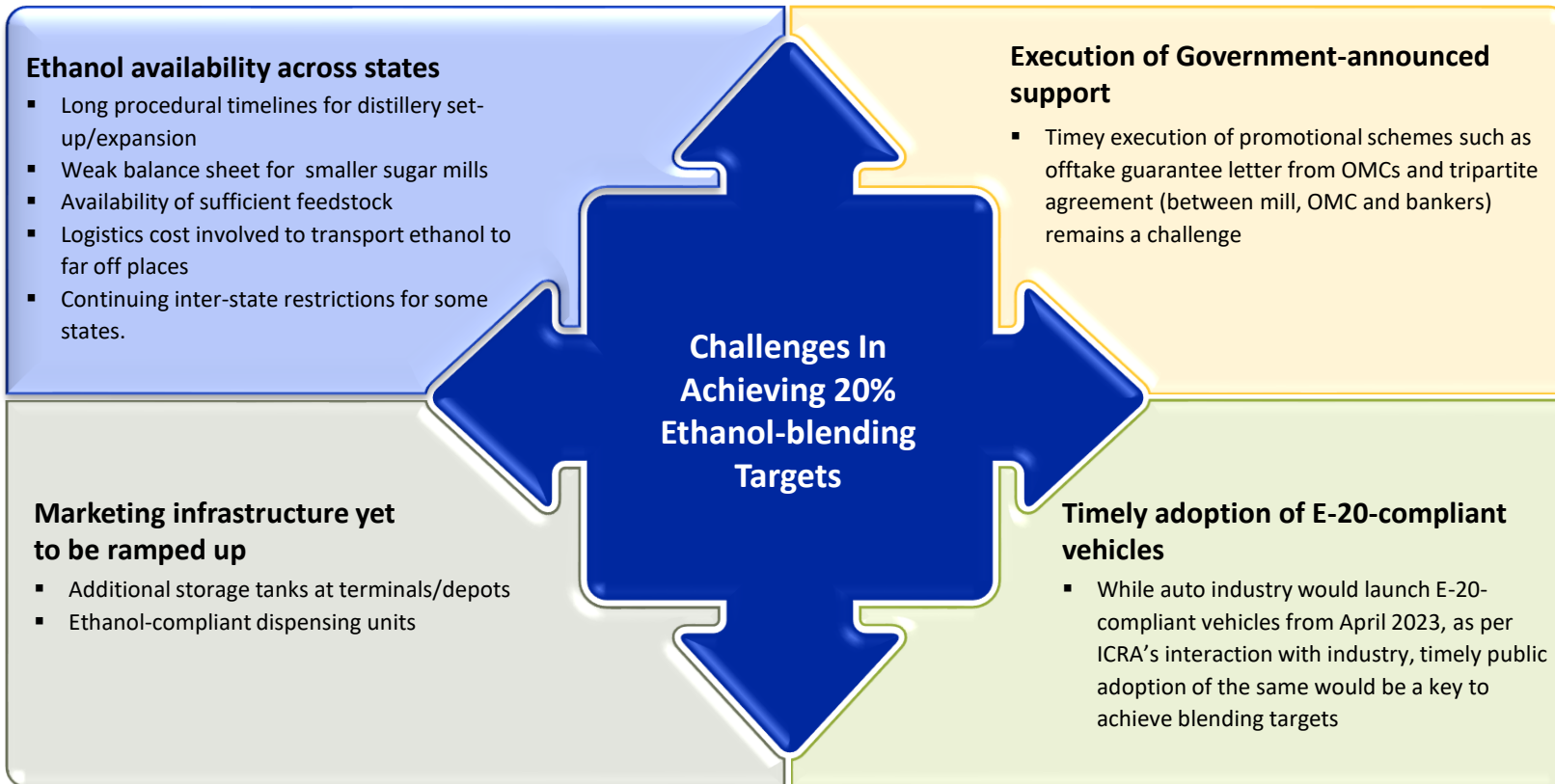
Exhibit: Feedstock wise break up of LOI ethanol quantity by OMCs (as on June 04, 2023) – 534.2 crore litre



Source: MoPNG, BPCL, ISMA



Above Letter of Intent (LoI) raised by the OMCs indicates reduced proportion of ethanol produced from B-heavy molasses and sugarcane juice to ~70% in ESY 2023 (till Jun 04, 2023) compared to ~79% in ESY 2022. This follows from new grain-based distillery capacities commissioning. Though in absolute terms the quantity increased for ethanol produced from B-heavy molasses and sugarcane juice.





Co-generation

With ethanol division gaining focus in addition to recent tariff corrections, co-generation is becoming a smaller segment for the sugar companies

Bagasse (~28% of cane crushed) produced during crushing season

Power generation during the crushing season and few months during off-season

Power is sold to the state distribution utilities (DISCOMs) through long-term power purchase agreements (PPAs) at rates approved by the State Electricity Regulatory Commissions (SERCs)

Tariff correction

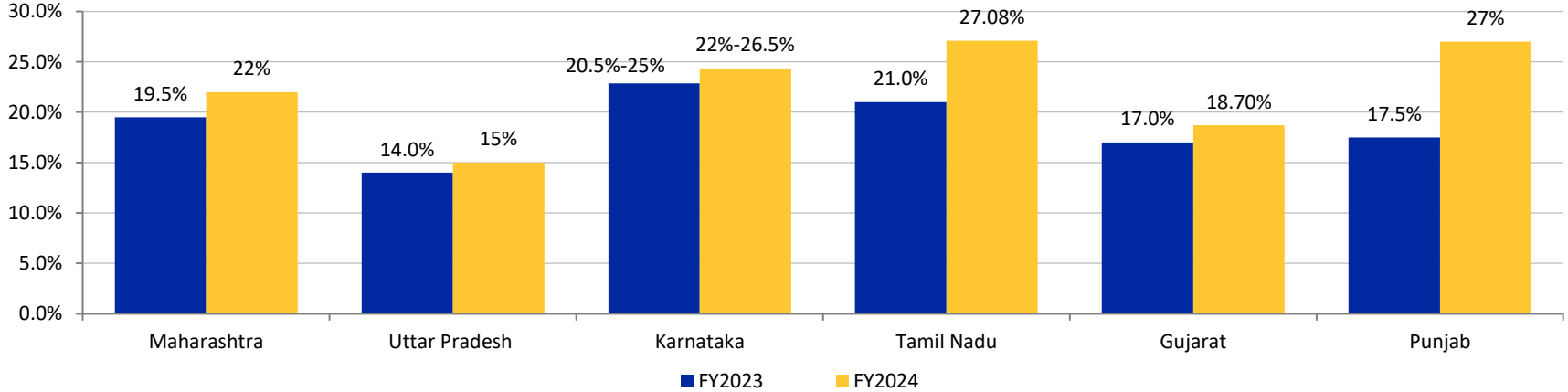
UPERC revised tariff to Rs. 3.03-3.42/unit for FY2021-FY2024 from ~Rs. 4.95-5.05/unit level in July 2019. Similarly, GERC has moderated tariffs to Rs. 4.2-4.6/unit for FY2021-FY2023 compared to earlier levels of ~Rs. 5.9/unit. This has resulted in moderation of cogeneration profitability for these states

Long receivable period

Long receivable cycle (12-18 months) an area of concern, especially for the sugar mills in UP, Andhra Pradesh, Telangana and Tamil Nadu, given the weak financial profile of the utilities

RPO increased for various states

Exhibit: State wise Renewable Purchase Obligation (RPO)



Source: Various state electricity board, ICRA research

- Most of the states increased RPO for FY2024 in line with India’s commitment to reduce carbon footprint. This would facilitate offtakes of power unit generated from renewable sources, including bagasse.
- However, power fixation remains responsibility of the state electricity board (SEB). In the past, UP and Gujarat SEB reduced tariffs for the current period from earlier levels, which have a direct bearing on the profitability of cogeneration units.

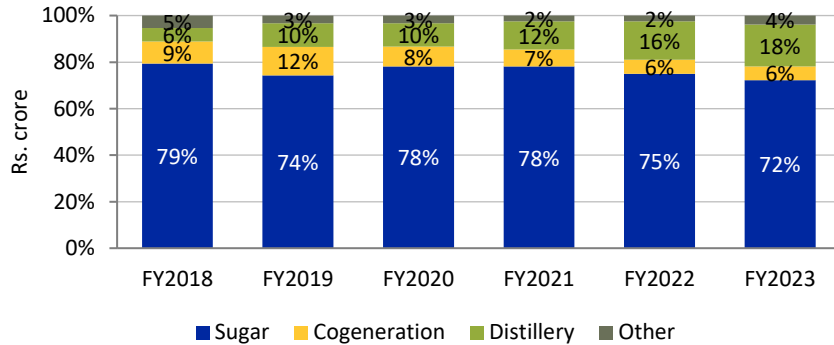


Segment-wise Profitability Analysis

Share of ethanol expected to increase further with upcoming distillery capacities, thus providing better revenue diversification

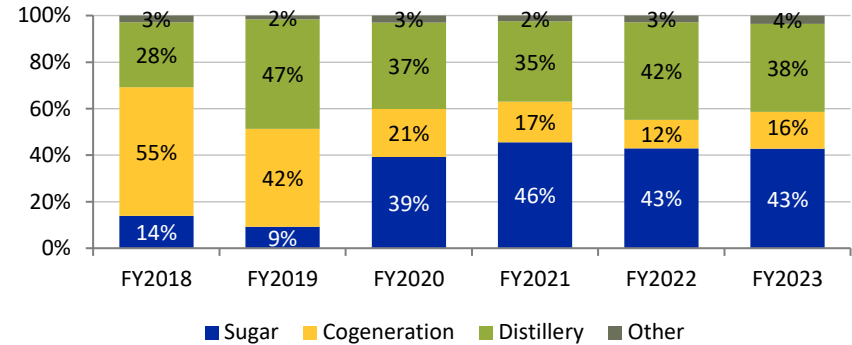
Revenue contribution from ethanol to further increase going forward

Exhibit: Yearly trend for segment-wise revenues break-up



Source: Companies' results, ICRA research

Exhibit: Yearly trend for segment-wise PBIT break-up



Source: Companies' results

- While revenues from forward integrated operations on an average account for 15%-24% of the total revenues of sugar mills, their percentage contribution to profits at PBIT level is much higher. Further, the contribution of the distillery division has increased significantly to 18% in FY2023 from 10%-12% on the back of expanded distillery capacities as well as higher sucrose diversion towards ethanol. Moreover, revenues from the distillery divisions are likely to rise further going forward with operationalisation of upcoming capacity expansions (including grain based/dual feed distillery for few players). The forward integration provides companies with the cushion during a downturn.
- In FY2022, PBIT was almost equal for both sugar and ethanol divisions with healthy realisations in the last fiscal for both. In FY2023 the PBIT of distillery slightly declined mainly because the profitability from various segments also depends on the transfer pricing policy of companies, resulting in higher profits in the sugar segment in FY2020-FY2023 with higher transfer pricing of molasses to the distillery division (increasing contribution from B-heavy molasses).

Note: ICRA's sample ; Note: Dhampur Sugar (DSML: included in ICRA sample) has undergone demerger with effect from April 1, 2021; Note: TEIL, DSML and BCML has recently changed the segments reporting and thus FY2021-FY2023 segment results may not be completely comparable with prior periods.

Ethanol driving sugar mills' profitability – through both distillery and sugar units

Exhibit: Yearly revenues and PBIT% from sugar segment

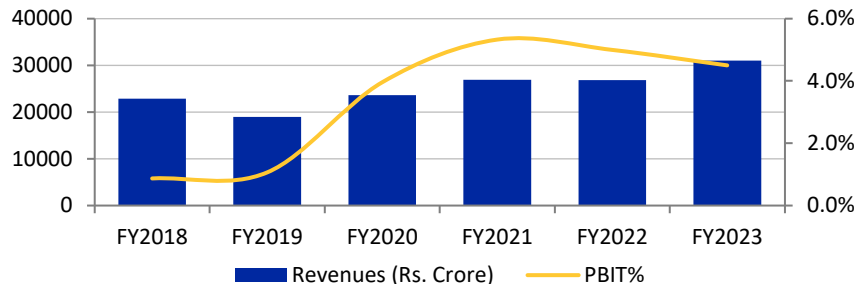


Exhibit: Yearly revenues and PBIT% from distillery segment

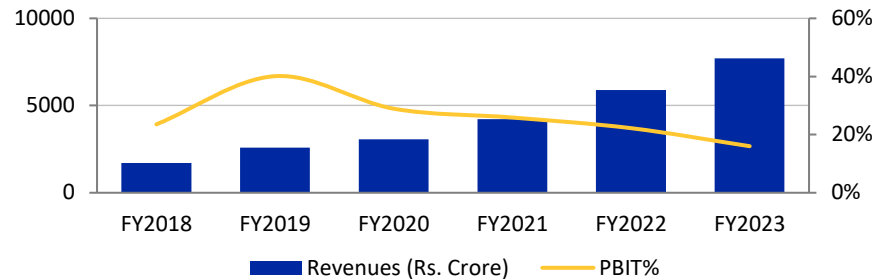


Exhibit: Yearly PBIT and PBIT % from cogeneration segment

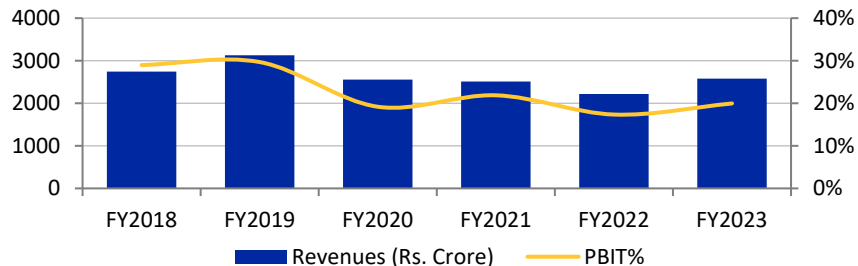
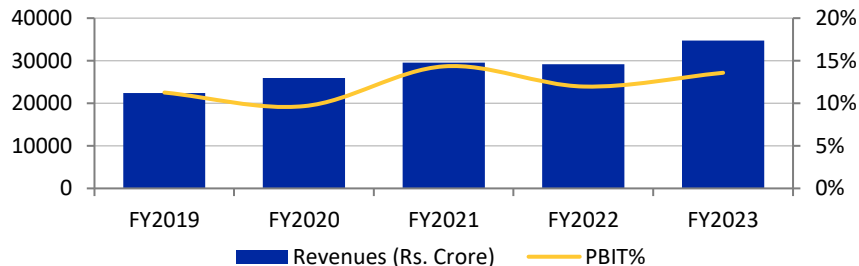


Exhibit: Yearly revenues and PBIT% of ICRA sample



Source: Company's results, ICRA research; Note: ICRA's sample, Note: Dhampur Sugar (DSML; included in ICRA sample) has undergone demerger with effect from April 1, 2021; Note: TEIL, DSML and BCML has recently changed the segments reporting and thus FY2021-FY2023 segment results may not be completely comparable with prior periods. Note: Extraordinary gain in TEIL has been removed for calculating yearly PBIT margin for FY2023.

Ethanol to support cash flows of sugar mills during off season

Exhibit: Quarterly revenues and PBIT% from sugar segment of ICRA sample

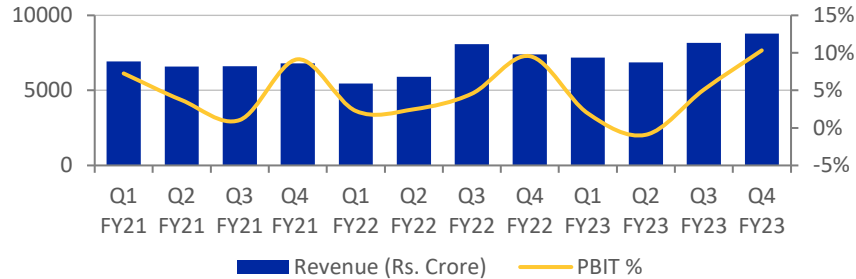


Exhibit: Quarterly revenues and PBIT% from cogeneration segment

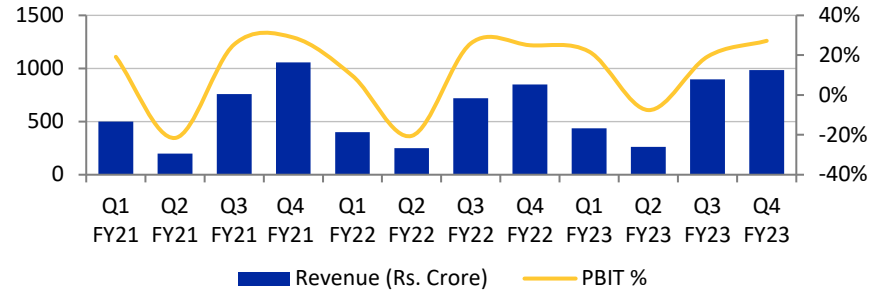


Exhibit: Quarterly revenues and PBIT% from distillery segment

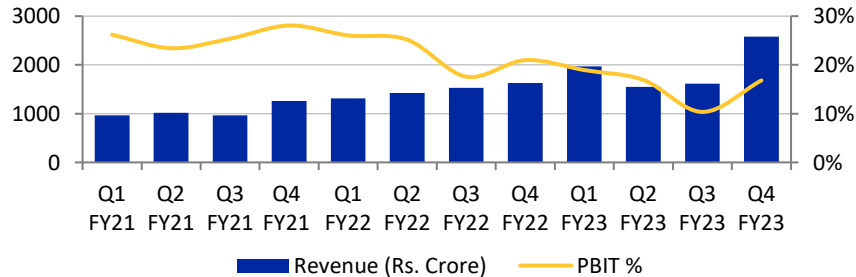
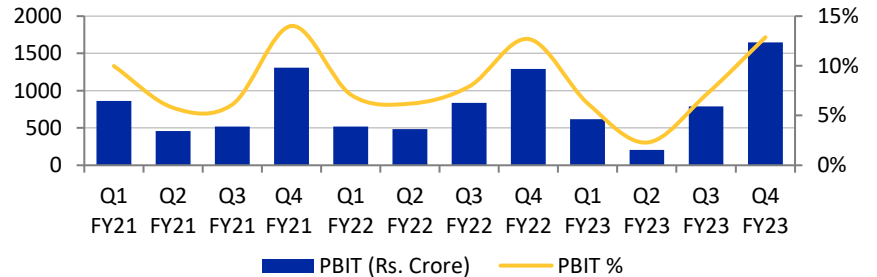


Exhibit: Quarterly PBIT and PBIT % of ICRA sample



Source: Company's results, ICRA research; Note: ICRA's sample; Note: Dhampur Sugar (DSML; included in ICRA sample) has undergone demerger with effect from April 1, 2021

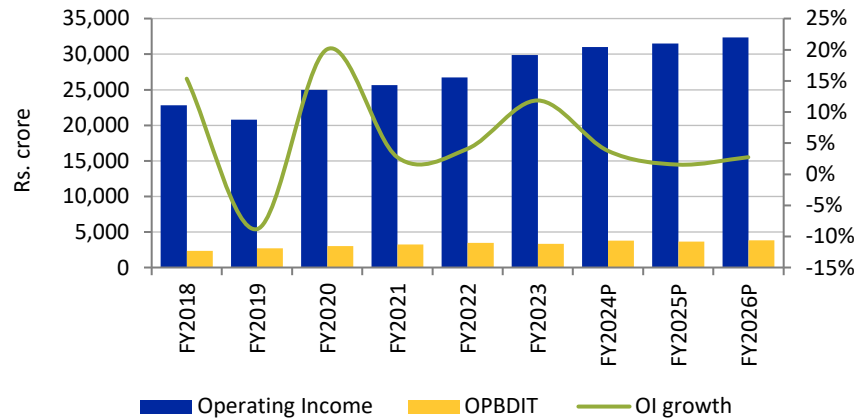


Projections for ICRA's Sample Set

Operating income for FY2024-FY2025 to remain stable; operating margin may improve in FY2024 supported by firmed up sugar realisations

Operating profits expected to improve slightly for FY2024

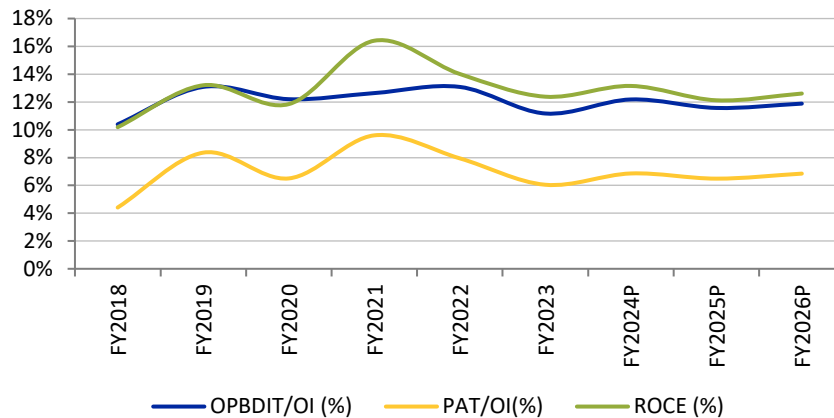
Exhibit: Trend in industry revenues and revenue growth



Source: ICRA Research

- The revenues of ICRA's sample set are expected to remain stable over FY2024-FY2026 supported by firmed up domestic and international sugar prices and improved ethanol realisations, in addition to expected healthy and ethanol volumes, partially offset by lower sugar volumes.

Exhibit: Trend in industry profit margins

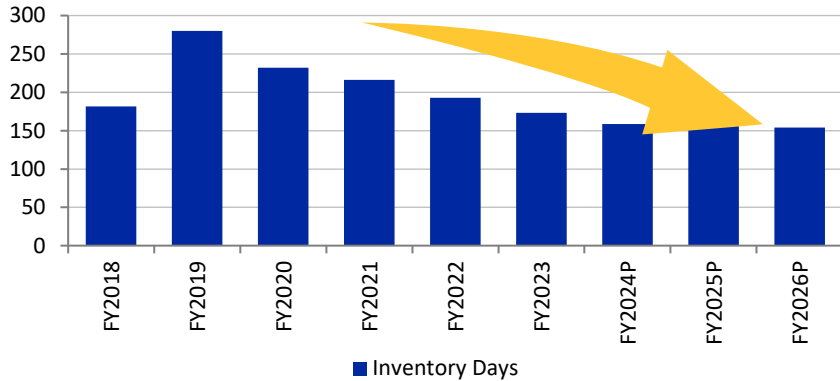


Source: ICRA Research

- Operating margins are likely to remain in the range of 11.0%-12.0% in FY2024-FY2026 (slightly higher from FY2023 levels) supported by improved sugar and ethanol realisations, even though some rise in cane cost is expected for SY2024.

Inventory to remain slightly lower than FY2023 levels

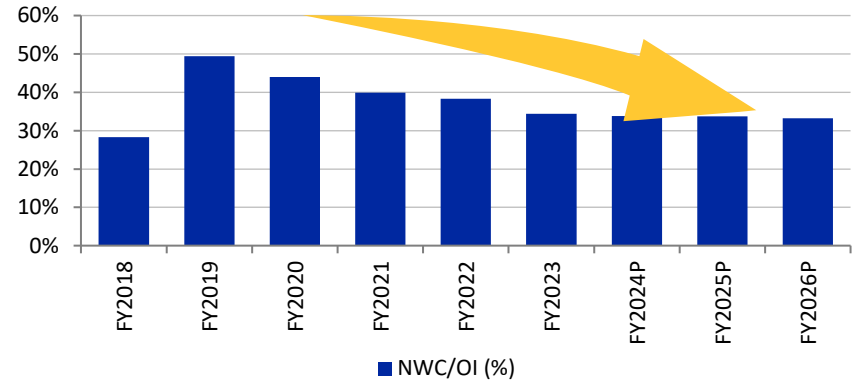
Exhibit: Trend in Inventory Days



Source: ICRA Research

- While sugar production declined in SY2023 on account of yield, there was moderation in the northern states along with lower crushing days in Maharashtra and Karnataka. With sugar exports at 6.1 million MT, the closing stock for SY2023 is likely to remain slightly lower than previous fiscal. Further, with higher sucrose diversion towards ethanol, industry's inventory levels are will be at comfortable levels of 155-160 days going forward.

Exhibit: Trend in working capital intensity (NWC/OI)

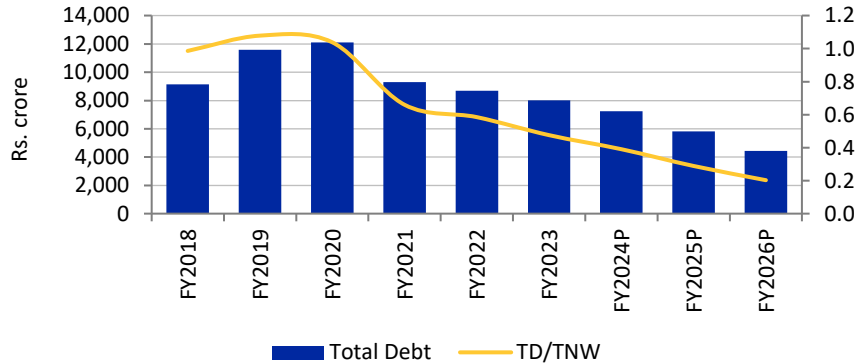


Source: ICRA Research

- ICRA sample set's working capital intensity is expected to remain stable in line with FY2023 with comfortable inventory position.

Credit profile expected to strengthen going forward

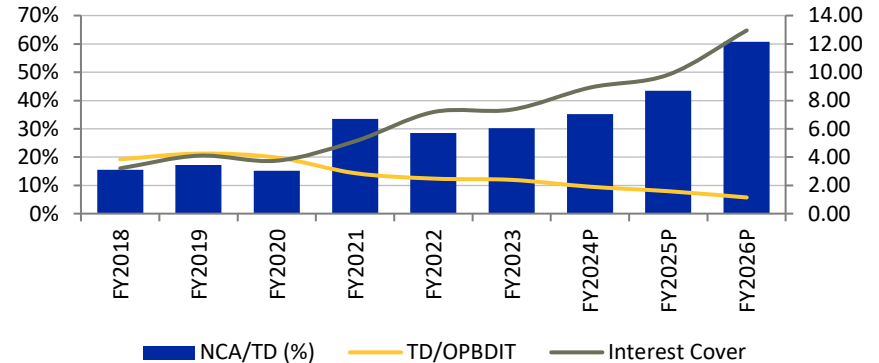
Exhibit: Trend in total debt and capital structure of the industry



Source: ICRA Research

- With slight reduction in closing inventory levels along with repayments of distillery loans with competition of major capex, the borrowings of ICRA samples are expected to reduce going forward substantially, despite ongoing debt-funded capex plans (for distillery and crushing capacities) for few of the players. Further, with accretion of profits, the capital structure is expected to be bolstered.

Exhibit: Trend in coverage metrics of the industry



Source: ICRA Research

- With healthy operating profits and reduced debt levels, the coverage metrics would emerge stronger despite increased cost of funding.

AA+
AA
AA-
A+
A
A-
BBB+
BBB
BBB-
BB+
BB
BB-

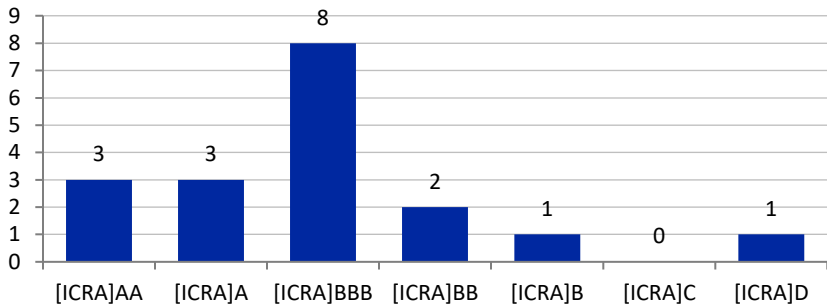


B+
B
B-
CCC+
CCC
CCC-
CC
C
D

ICRA Rating in the Sector

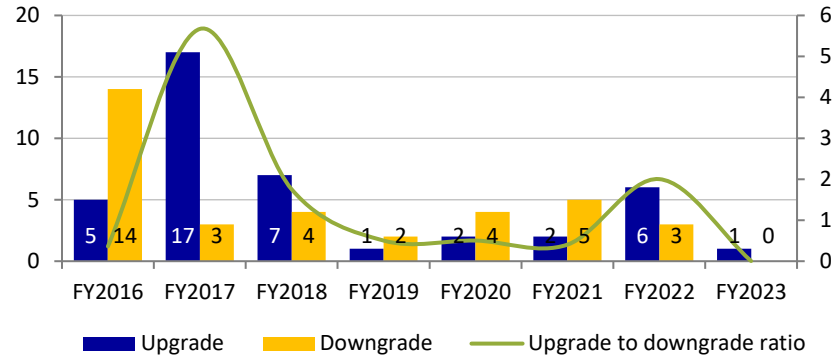
Rating actions in the recent past in sugar sector

Exhibit: Rating distribution of ICRA rated universe of sugar companies as on June 27, 2023



The above data does not include ratings placed on issuer not cooperating; Source: ICRA Research

Exhibit: Count of upgrades and downgrades (ICRA rated universe)



Source: ICRA Research, excluding downgrades on account of INC

- While in FY2023 there has been **one** upgrade, in FY2022, **six** entities were upgraded while **three** were downgraded.
- Primary reasons for upgrade include healthy growth in operating profits and strengthening of debt protection metrics driven by higher domestic and international sugar prices, increased ethanol volumes, improved blended distillery realisations with favourable changes in ethanol mix. Some companies also take the opportunity to reduce sugar inventory levels and working capital debt through healthy export volumes under OGL. One of the entities were upgraded for the healthy revenue growth and improved profitability in light of higher cane availability in Maharashtra and Karnataka. Further, one of the entities was upgraded for timely servicing of debt along with likely business improvement aided by higher cane crushing in SY2021, stable sugar prices and healthy exports. Another entity was upgraded owing to improved financial performance and liquidity backed by healthy performance of the bottling and the distillery segments.
- In FY2022, one entity was downgraded due to delays in debt servicing owing to poor liquidity and the other two entities were downgraded on account of deterioration in their liquidity position, significantly high repayment obligations in addition to weakened financial profile and moderated capital structure and debt coverage metrics.



Peer Comparison

Revenues and profitability of key players in FY2023

	Sugar capacity (TCD)	Cogeneration capacity (MW)	Distillery capacity (KLPD)	Operating income (Rs. Crore)	Revenue Growth (%)	PBDITA/OI (%)	PAT/OI (%)	Interest Coverage
	As on March 31, 2023			FY2023	YoY	FY2023	FY2023	FY2023
Balrampur Chini Sugar Mills Limited (BCML)	78,000	175.7	1050	4,666	-4%	11.0%	5.8%	10.5
Triveni Engineering & Industries Limited (TEIL)	61,000	104.5	660	5,617	31%	11.0%	6.7%	10.9
Dhampur Sugar Mills Limited (DSML)	23,500	121	350	2,412	24%	12.3%	6.2%	6.8
Dalmia Bharat Sugar & Industries Limited (DBSIL)	37,150	119	710	3,252	7%	13.4%	7.6%	11.6
Uttam Sugar Mills Ltd. (USML)	23,750	103	200	2,059	1%	11.9%	6.0%	4.7
Dwarikesh Sugar Industries Limited (DSIL)	21,500	96	337.5	2,103	7%	10.2%	5.0%	8.3
EID Parry India Limited (EIDL)	40,300	140	417	2,895	16%	9.3%	6.8%	7.5
Bannari Amman Sugars Limited (BASL)	23,700	129.8	217.5	2,526	26%	12.0%	5.7%	6.2
Kothari Sugars and Chemicals Limited (KSCL)	6,400	33	60	610	44%	9.9%	6.9%	15.6
Avadh Sugar and Energy Limited (ASEL)	33,500	74	325	2,798	2%	9.1%	3.6%	3.7
Magadh Sugar and Energy Limited (MSEL)	19,000	38	150	953	-4%	13.7%	5.3%	4.3
Total (ICRA Sample)				29,234	12%	11.2%	6.0%	7.4

Source: Financial results of companies, TCD: Tonnes crushed per day, MW: Mega watt, KLPD: Kilo Litres Per Day

Industry aggregates – Profit and loss statement

Profit and Loss	FY2019	FY2020	FY2021	FY2022	FY2023
Operating Income	20,822	25,001	25,686	26,773	29,890
OI growth	-9%	20%	2.7%	4.2%	11.6%
OPBDIT	2,740	3,064	3,261	3,540	3,339
Depreciation	588	635	674	691	782
Non operating income/(expenses)	579	312	513	448	573
PBIT	2,716	2,746	3,894	3,277	3,023
Interest Expense	665	815	634	487	454
PBT	2,051	1,931	3,260	2,790	2,569
PAT	1,754	1,644	2,475	2,120	1,806
NCA	2,009	1,872	3,139	2,468	2,535

Source: Financials of various sugar companies and ICRA Research, Note: Amount in Rs. Crore

Industry aggregates – Key ratios

Equity and Liabilities	FY2019	FY2020	FY2021	FY2022	FY2023
Net Worth (incl. minority interest)	10,757	11,700	14,157	14,878	16,843
Long term debt	4,257	4,672	3,359	2,958	2,542
Short-term Debt	7,321	7,461	5,951	5,747	5,467
Total Debt	11,578	12,134	9,311	8,705	8,010
Other non-Current Liabilities	118	163	158	94	98
Deferred Tax Liability/(Asset)	166	107	557	736	931
Trade Creditors	4,533	4,598	3,876	2,411	2,412
Advances from Customers	139	178	161	178	0
Interest Accrued but not due	96	90	40	31	0
Other Current Liabilities	2,055	2,154	2,031	2,084	1,010
Total Liabilities	29,443	31,124	30,291	29,117	29,302

Source: Financials of various sugar companies and ICRA Research, Note: Amount in Rs. Crore; *The net worth didn't increase in line with cash accruals mainly due to demerger of Dhampur Sugar Mills Limited

Industry aggregates – Key ratios

Assets	FY2019	FY2020	FY2021	FY2022	FY2023
Gross Block	14,070	15,338	15,690	15,897	17,062
Capital Work In Progress	365	282	498	781	328
Net fixed Assets	10,632	11,151	11,136	11,606	12,793
Total Investments	1,533	1,618	2,115	2,233	2,087
Other Non-current assets	103	101	403	86	190
Liquid Investments	127	230	160	173	234
Cash and Bank Balance	120	160	215	298	285
Trade Receivables	1,979	2,477	1,979	1,763	1,708
Total Inventory	13,121	13,279	12,609	11,615	11,168
Other current Assets	1,828	2,108	1,673	1,342	839
Total Assets	29,443	31,124	30,291	29,117	29,302

Source: Financials of various sugar companies and ICRA Research, Note: Amount in Rs. Crore

rahul.pant@icraindia.com 7/14/2023 11:52:27 AM

Industry aggregates – Key ratios

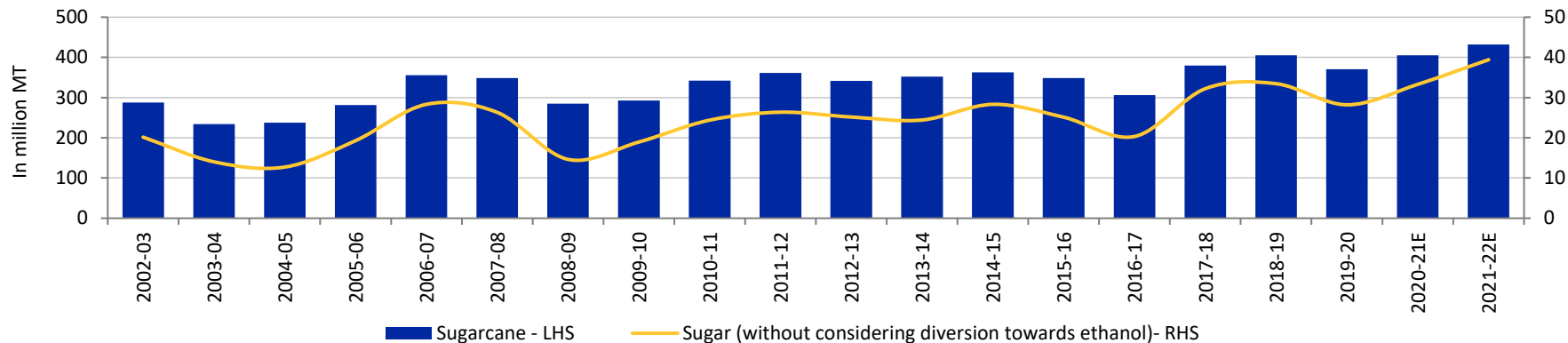
Key Ratios	FY2019	FY2020	FY2021	FY2022	FY2023
Sales Growth	-9%	20%	3%	4%	12%
OPBITDA Growth	15%	12%	6%	9%	-6%
Profitability Indicators					
OPBITDA Margin	13.2%	12.3%	12.7%	13.2%	11.2%
PBIT Margin	13.0%	11.0%	15.2%	12.2%	10.1%
PAT Margin	8.4%	6.6%	9.6%	7.9%	6.0%
RoCE	13.4%	12.0%	16.6%	14.0%	12.4%
Liquidity Ratios					
Debtor (days)	37	39	30	24	20
Payable (days)	93	92	78	47	42
Inventory (days)	280	232	216	193	173
Net Working Capital/Revenues	49%	44%	40%	38%	34%
Current Ratio	1.2	1.2	1.3	1.4	1.5
Capitalisation Ratios					
Total Debt/ Equity + MI	1.1	1.0	0.7	0.6	0.5
Interest Coverage	4.1	3.8	5.1	7.3	7.4
Total Debt/OPBITDA	4.2	4.0	2.9	2.5	2.4

Source: Financials of various sugar companies and ICRA Research, Note: Amount in Rs. Crore

rahul.pant@icraindia.com 7/14/2023 11:52:27 AM

Sugar production largely in line with cane levels

Exhibit: Trends in cane production and sugar production (in million MT)



Source: IMD, ICRA Research; Note: For sugarcane production, the year is April–March while for sugar production, the year is October–September

- The production of sugar in the country has largely been in line with sugarcane production, even as factors such as cane quality (impacts recovery rates) and diversion towards gur/khandsari units also has had a bearing on sugar-production levels.
- In SY2022, gross sugar production (i.e. without considering sucrose diversion towards ethanol) stood at 39.2 million MT, 18% higher on YoY basis in the backdrop of higher area under sugarcane cultivation, healthy yields as well as better sugar recoveries, given favourable monsoons and adequate reservoir levels in southern and western parts of the country. The ISMA preliminary estimates pointed to gross sugar production (without considering ethanol diversion) around 41 million MT in SY2023. However, on account of prolonged rains in Maharashtra as well as northern states, the yield may moderate against initial expectations.

Sugarcane sowing slightly higher than last year levels

Exhibit: Trend in monsoon rainfall over past few years

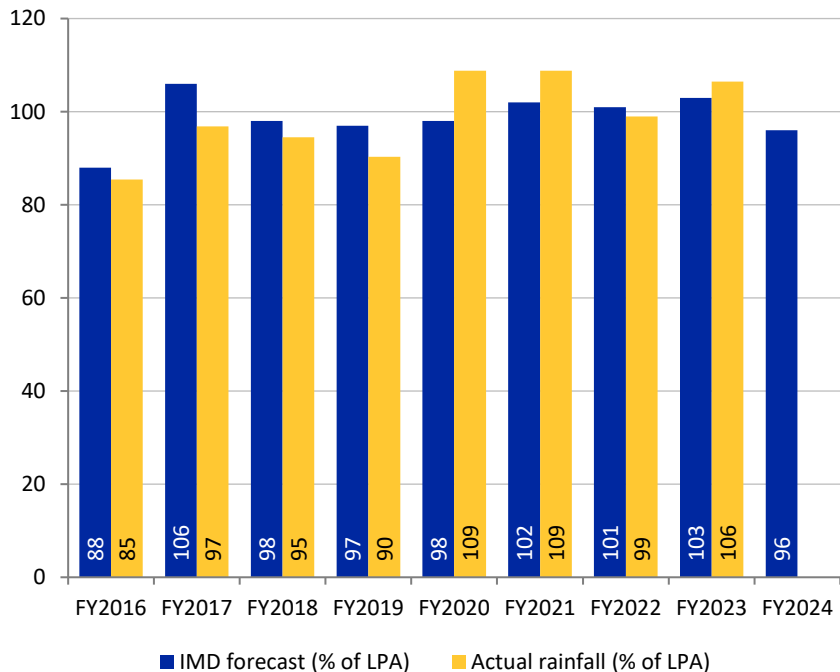
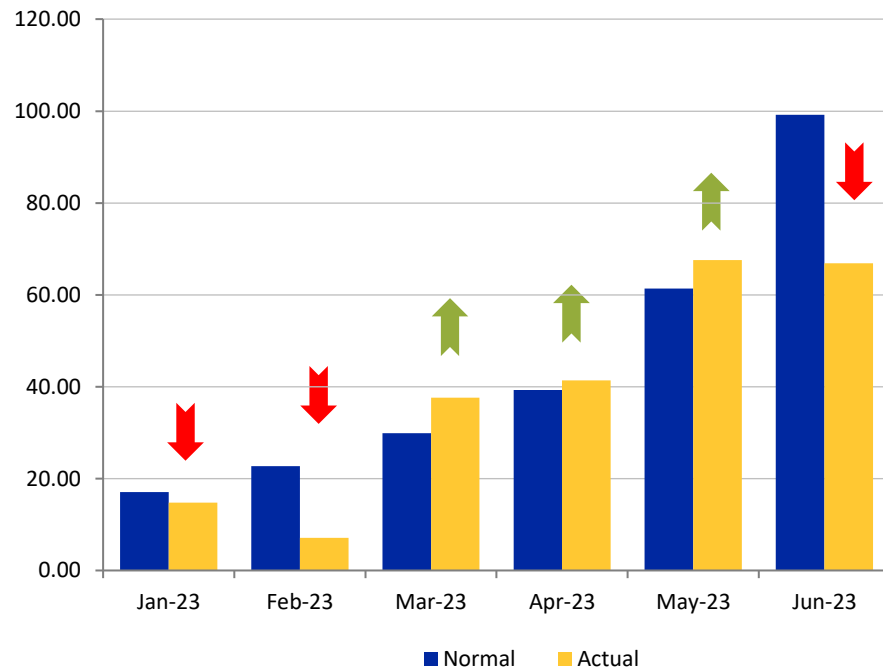


Exhibit: Monthly rainfall trend for H1CY2023 (in mm)



Source: Indian Meteorological Department (IMD)

Reservoir levels lower than last year for major sugar-producing states except MH

Exhibit: Reservoir levels in Uttar Pradesh (in BCM)

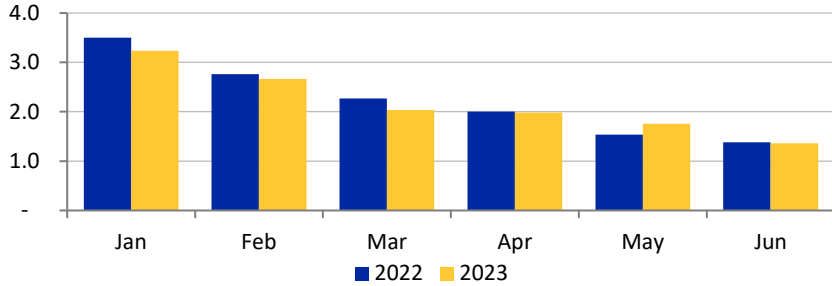


Exhibit: Reservoir levels in Maharashtra (in BCM)

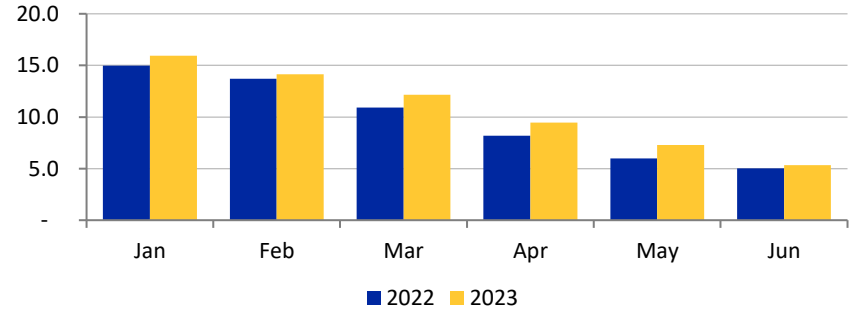


Exhibit: Reservoir levels in Karnataka (in BCM)

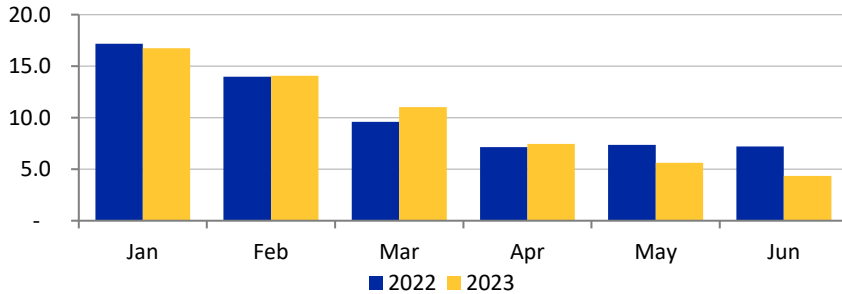
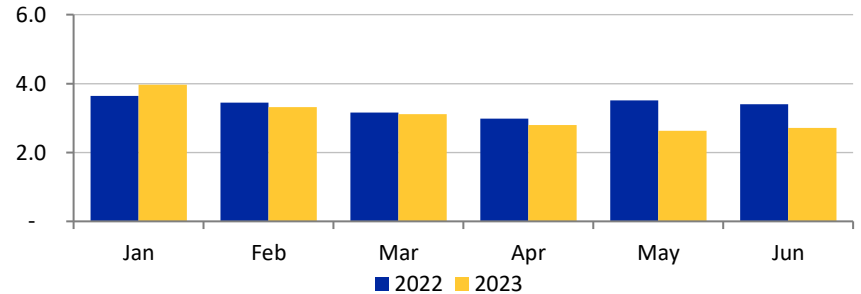


Exhibit: Reservoir levels in Tamil Nadu (in BCM)





[Click to Provide Feedback](#)



ICRA

Analytical Contact Details

Name	Designation	Email	Contact Number
Sabyasachi Majumdar	Senior Vice-President	sabyasachi@icraindia.com	0124- 4545 304
Girishkumar Kadam	Senior Vice-President and Co-Group Head	girishkumar@icraindia.com	022 – 6 114 3441
Anupama Arora	Vice-President and Sector Head	anupama@icraindia.com	0124 – 4545 303
Menka Sabnani	Senior Analyst	menka.sabanani@icraindia.com	079 – 40271 562





ICRA

Business Development/Media Contact Details

Name	Designation	Email	Contact Number
L Shivakumar	Chief Business Officer	shivakumar@icraindia.com	022-61693304
Neha Agarwal	Head – Research Sales	neha.agarwal@icraindia.com	022-61693377
Rohit Gupta	Head Business Development - Infrastructure Sector	rohitg@icraindia.com	0124-4545340
Vivek Bhalla	Head Business Development - Financial Sector	vivek.bhalla@icraindia.com	022-61693372
Vipin Saboo	Head Business Development – Corporate Sector - West & East	vipin.saboo@icraindia.com	022-61693348
Shivam Bhatia	Head Business Development – Corporate Sector - North & South	shivam.bhatia@icraindia.com	0124-4545803
Naznin Prodhani	Head – Media & Communications	communications@icraindia.com	0124-4545860





© Copyright, 2023 ICRA Limited. All Rights Reserved.

All information contained herein has been obtained by ICRA from sources believed by it to be accurate and reliable. Although reasonable care has been taken to ensure that the information herein is true, such information is provided 'as is' without any warranty of any kind, and ICRA in particular, makes no representation or warranty, express or implied, as to the accuracy, timeliness or completeness of any such information. Also, ICRA or any of its group companies, while publishing or otherwise disseminating other reports may have presented data, analyses and/or opinions that may be inconsistent with the data, analyses and/or opinions in this publication. All information contained herein must be construed solely as statements of opinion, and ICRA shall not be liable for any losses incurred by users from any use of this publication or its contents.



ICRA

Thank You!