COVER STORY

ETHANOL

BLEND IT TO FIX IT

Ethanol blending promises to open up a sizeable market for the domestic sugar industry to utilise excess production, without hurting farmer interest

BY SUMANT BANERJI
ILLUSTRATION BY RAJ VERMA

THE ETHANOL SOLUTION

The sugar industry keeps facing the problem of oversupply every few years due to subsidies and assured purchase price

Mills struggle to pay farmers because they have to buy a minimum quantity of sugarcane in their catchment areas even if there is no demand

The target of 10 per cent ethanol blending by 2022 is expected to absorb excess supplies and help both farmers and mills. It will also reduce imports of petrol

Midway through his address at the annual congregation of the domestic sugar industry in December 2020, Piyush Goyal, Union Minister for Commerce and Railways, said something that cast a pall of gloom on the occasion. Goyal said the industry should forget about reduction of the fair and remunerative price (FRP), the reference price set by the government every year which sugar mills are obliged to pay farmers.

The industry has been demanding for years that FRP should be linked to sugar prices that move according to demand and supply. This was advocated by the Rangarajan Committee way back in 2012. Reducing FRP, however, could mean a fall in income for farmers, something no government can afford.

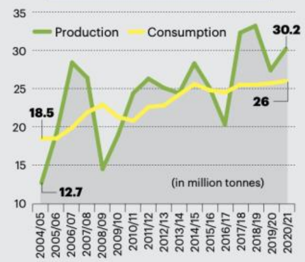
"Let's be practical about it. We cannot reduce the FRP," Goyal said at the annual general meeting of industry body Indian Sugar Mills Association (ISMA). "It's an institutional mechanism that has been going on for several years." Instead, he urged the industry to look at alternatives such as ethanol, which can be blended with gasoline, to divert excess sugar production in the country. The prescription is not new. Nor is Goyal the first person to say it. His Cabinet colleague Nitin Gadkari, the Minister for Road Transport, Highways and MSME, who hails from the sugar-producing belt of Maharashtra, has been a strong proponent of blending ethanol with motor fuels. There is not a single public forum where he doesn't mention it. "Ethanol production from molasses and sugarcane juice can be easily ramped up in Uttar Pradesh and Maharashtra where we have excess sugar capacity," says Gadkari. "My dream is to take the ethanol economy from the current ₹20,000 crore to ₹2,00,000 crore."

Ethanol: The New Fad In Town

The government is walking the talk with steps on the ground as well. Procurement of ethanol by oil companies for blending has grown from just 38 crore litres in FY14 to an estimated 173 crore litres in FY20. The blending rate has increased from 1.53 per cent to over 5 per cent. Ethanol production capacity in the country has shot up to over 400 crore litres.

The government's plans are far more ambitious. Within a month of Goyal's address at ISMA, it advanced the timeline for achieving 20 per cent blending from 2030 to 2025 in the hope that 10 per cent blending would be achieved by 2022. If achieved, it could solve a number of problems. India depends on imports for over 85 per cent of its crude oil requirement and any substitution will bring down the import bill, saving precious foreign currency. Blending ethanol with gasoline would also partially curb tail-pipe emissions, which would in turn contribute to the country's war on air pollution. More importantly, 20 per cent blending would require substantial ethanol production, which will open up a sizeable opportunity for the sugar industry to divert its excess production. Ethanol can be produced either from sugarcane juice and molasses or damaged food crops.

OVERSUPPLY IS BACK...



...AS ARREARS TO FARMERS MOUNT...

Sugar mills are struggling to pay farmers

* as of February 2021; Source: Government Of India

"Ethanol-blending programme is an excellent opportunity for the industry to divert surplus production towards ethanol and create an alternative revenue stream," says Abinash Verma, Director-general, ISMA. "Currently, oil companies have sought 457 crore litres for FY21 (ethanol supply year December 2021-November 2022), of which contracted supply is approximately 300 crore litres till April 5, out of which 106 crore litres have already been supplied. The overall blending percentage in the country right now is 7.27 per cent, an all-time high. To understand how big the opportunity is, 20 per cent blending means the country would need around 1,000 crore litres of ethanol annually by 2030."

Incentives Galore

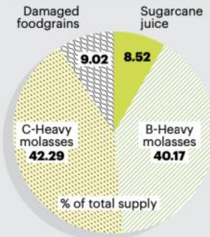
At current rates, with crude hovering over $60 per barrel, it is slightly remunerative for oil companies to blend even though the percentage is so low — sub 8 per cent that it doesn't make a difference overall. Ethanol pricing itself is decided by the government, so state-run oil companies have to simply adhere to it. For the current year, ethanol extracted from sugarcane juice is being procured at ₹62.65 per litre, from C-Heavy molasses at ₹45.69 per litre and from B-Heavy molasses at ₹57.61 per litre. It is a far cry from 2010 when ethanol was being bought by oil companies at just ₹27 per litre. In the past, blending did not take off also since not much was invested in building distilling capacities.

The government has formulated policies that incentivise mills that are desirous of building distilleries. These include financial assistance by way of interest subvention for five years at 6 per cent maximum rate of interest against loans availed by sugar mills from banks. Between 2018 and 2020, about ₹3,600-crore loans were

...AND ETHANOL CAPACITY REMAINS HEAVILY UNDERUTILISED

Figures in crore litres; source : Ministry of Petroleum & Natural Gas, ISMA

WHERE ETHANOL IS PROCURED FROM



Source : MoPNG

sanctioned for 70 ethanol projects (molasses-based distilleries) with a capacity of 195 crore litres. Of these, 31 projects have been completed, adding a capacity of 102 crore litres so far. In November last year, in-principle approval was granted to another 185 sugar mills and standalone distilleries to avail ₹12,500 crore of loans for capacity addition of about 468 crore litre of ethanol per annum.

The Centre also increased ethanol prices, offering a significant premium above sugar prices to incentivise the industry. It was one of the factors that acted as a stumbling block in the past. Keeping in mind the business realities of different sources of raw materials for ethanol, differential pricing was introduced in 2018. In fact, in October last year, the Cabinet Committee on Economic Affairs (CCEA) announced the steepest ever hike in prices of ethanol — ₹1.94 per litre for C-Heavy molasses, ₹3.34 per litre for B-Heavy and ₹3.17 per litre for sugarcane juice. The minimum support price for sugar, which was hiked by ₹2 per kg in February 2019, is ₹31 per kg and the market price right now is ₹33-34 per kg.

"With ethanol contributing 10-15 per cent of sugar mills' turnover, remunerative prices are expected to encourage mills to enhance the supply of ethanol for blending, thereby supporting revenues, profitability and improving their ability to pay farmers," says Sabyasachi Majumdar, Senior Vice president and Group Head, ICRA Ratings.

"Ethanol is one of the panaceas for problems in this sector. At least 6 million tonnes of sugar production will have to be diverted for 20 per cent blending," says Tarun Sawhney, Vice chairman and Managing Director, Triveni Engineering and Industries. "If realised, this can bring parity between production and demand." During the current financial year, 39 per cent of the distillation capacity at Triveni has been utilised to produce ethanol using B-Heavy molasses, while it was only 15 per cent during the corresponding period of last year. Sawhney is also setting up a distillery with a capacity of 160 KLPD (kilolitre per day) at its sugar mill in Milak Narayanpur and a smaller grain-based distillery of 40 KLPD at Muzaffarnagar, Uttar Pradesh, with a combined investment of ₹250 crore. This will enhance Triveni's capacity from 320 KLPD to 520 KLPD. It is already one of the country's largest ethanol producers.

Similarly, another major sugar producer, Dhampur Sugar Mills, is expanding its distillery capacity in Asmoli in UP from 1,50,000 to 2,50,000 LPD, which will take its overall capacity from 400 to 500 KLPD by November. It is investing ₹160 crore for the same. "The ethanol-blending programme is really welcome and a key driver of sustainability in the sector," says Joint Chief Financial Officer Nalin Gupta. "The investment that the industry is required to make to expand ethanol capacity at distilleries makes sense as the price of a litre of ethanol is 1.6 times the price of every kilogram of sugar. So, there is a revenue upside to this."

Solving The Problem Of Plenty

The diversion to ethanol is expected to solve the structural and sticky issues in the sector that have undermined its growth prospects, besides ushering in discontent among the 50-million strong sugarcane farming community in the country. At the heart of it is the glut in the domestic market.

Traditionally, India's sugar industry has been cyclical where three-four years of bumper crop — when overcapacity leads to a fall in prices and margins for companies — are followed by a couple of years of shortfall, which helps correct prices and bolster margins. That trend has been disrupted. Since FY17, the country has been producing far in excess of what it can consume.

Ethanol-blending programme is an excellent opportunity for the industry to divert surplus production towards ethanol and create an alternative revenue stream"

Abinash Verma, Director-General, Indian Sugar Mills Association

The current sugar season from October last year began with record rollover stock of 10.7 million tonnes. With expected production of 30.2 million tonnes and domestic consumption of only 26 million tonnes, it will be the fourth straight year of production far outstripping consumption.

The excess capacity has been keeping prices low in the market even as FRP, a cost for the mills, has not come down. In the last 10 years, FRP has increased almost 100 per cent, against only a 15 per cent increase in sugar prices. At the same time, mills are duty-bound to crush all the cane that is brought to them by farmers each year. As a result, money owed by mills to farmers referred to as arrears has already ballooned to an all-time high ₹22,900 crore (as on February 2021). At this time last year, outstanding dues to farmers were at ₹19,200 crore.

"The minister (Goyal) is absolutely right — FRP cannot be reduced. The farmer should not suffer," says Sawhney of Triveni. "Instead, the industry should be allowed to increase prices of sugar in the market."

Among the many solutions that have been offered, the most high profile was in 2012 by C. Rangarajan who was then the chairman of Manmohan Singh government's Economic Advisory Council. One of his key recommendations was a revenue-sharing formula (RSF) wherein the price of cane would be determined at 75 percent of the revenue of sugar. While the government has in-principle accepted these recommendations, they are yet to be implemented in spirit.

"For the past seven years we have been continuously asking the government to implement Rangarajan Committee's cane-pricing formula. Once its done, the price of cane will not be arbitrary but linked to market forces," says Verma of ISMA. "At the same time to protect farmers, a price stabilisation fund is proposed to bridge the gap between cane price as per RSF and the FRP that farmers are supposed to get. This has also been regularly recommended by the Commission for Agricultural Costs and Price (CACP) and most recently by Niti Ayog in March 2020."

Ethanol is definitely one of the panaceas for the problems in this sector. At least six million tonnes of sugar production will have to be diverted for 20 per cent blending. If realised, this can help bring parity between production and demand"

Tarun Sawhney, Vice chairman & MD, Triveni Engineering and Industries

In most commodities, a possible solution to a glut in the domestic market is exports. In the sugar industry it is generally a glut in international markets. Also, global prices are typically lower than in India. The government has, however, stepped in with subsidies from time to time to encourage mills to export surplus production. In the sugar season 2019/20 for example, a subsidy of ₹10.45 per kg was provided with a quota of 6 million tonnes, which resulted in record exports of 7.25 million tonnes. This year, the subsidy has been lowered to ₹5.8 per kg but it will still be enough for the industry to export at least 6 million tonnes of sugar.

But the window for exports is closing as well. WTO member countries have begun to complain about the subsidies being offered by India and though India has countered such claims, there is a deadline that ends in December 2023. "Exports are relevant to manage surplus stock but not a sustainable solution as India has moved to a surplus state by breaking the cyclicality," says Ravleen Sethi, Senior Manager, CARE Ratings.

The large number of vehicles already compliant with 10 per cent blended fuel and the buoyancy that India's automobile sector is expected to demonstrate in the years to come augur well for a steady rise in demand for ethanol.

The fortunes of the domestic sugar sector will be determined by how the "E" factor plays out on the ground in the years to come. BT

@sumantbanerji