GODAVARI

SWEET SPOT Sugar, refined in company-owned plants such as this one, is the starting point for Godavari's chemical production.

SUSTAINABILITY YIELDS SWEET SUCCESS

Indian biobased chemicals firm **GODAVARI** seeks to blend social, ecological, and financial gain

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BASIC ECONOMICS TEACHES that companies exist to maximize their profits. Godavari Biorefineries, an Indian producer of sugar, ethanol, and biobased chemicals, didn't get that memo. Its managers appear focused as much on philanthropy and sustainability as they are on generating a financial surplus every year.

It's an unconventional approach that is working for the firm. Sales at the 76-year-old company have risen steadily from $160 million in 2010 to $202 million last year, according to a recent financial report. Investors seem to like what they see. Godavari succeeded in securing a $15 million cash injection last month from a private equity fund.

Godavari is an unusual company. On the one hand, it does business in the standard way of producing price-competitive materials at large, integrated complexes. On the other hand, it funds medical services and the education of young people in the communities where it operates and also lends money to farmers that supply it with sugarcane.

"We have a strong sense of social mission that started with my grandfather, who was born poor," says Samir Somaiya, Godavari's third-generation chairman and managing director. "We take a very long-term perspective to business."

The company was founded in 1939, when the elder Somaiya, after enjoying some success as a sugar trader, decided to start up his own sugar mill. In the decades that followed, Godavari's business thrived, partly because it was protected by Indian import tariffs. When his grandson Samir Somaiya joined the company, those tariffs were in the process of being dismantled. The company had to close plants, a trauma that has guided Somaiya's decision-making ever since.

"I decided to never rely again on tariff protection," Samir Somaiya says. He went further than that, reorganizing the business so success doesn't depend on any specific set of conditions. "We don't want to be vulnerable to any technology, any one process, any customer," Somaiya says.

India is a major sugar exporter, and Godavari is one of India's major sugar refiners. Under Somaiya, a basic tenet has been to extract more value out of sugarcane farming. Starting with sugarcane, Godavari refines sugar, ferments ethanol, and derives an ever-expanding range of biochemicals. From plantation waste, it extracts energy at cogeneration plants that are integrated with its mills and chemical plants.

Ethanol is Godavari's starting point for a family of downstream chemicals. It converts ethanol into acetaldehyde and then acetic acid. From there it produces derivatives such as ethyl acetate, crotonaldehyde, 1,3-butanediol, and flavor and fragrance ingredients.

The company calls itself one of the world's top 10 producers of ethyl acetate, and it exports more than two-thirds of the chemicals it makes. With the launch of new biochemicals and the commissioning of more power generation capacity this year, the company expects its sales to surge by 25% to $250 million.

IT'S UNUSUAL for a major biobased chemical maker to emerge from the sugar business, according to Sarah Hickingbottom, business development manager for oleo- and biochemicals at LMC International, a consulting firm based in Oxford, England. Most biochemical firms own a specific technology they use to produce chemicals from purchased feedstock. Or they are chemical companies that modify a petrochemical process to use a biobased feedstock instead.

But as the biobased chemical business matures, access to competitive feedstock may win the day, Hickingbottom predicts. Production processes in this relatively new business will eventually become standardized. When that happens, having ac-

Godavari At A Glance

Headquarters: Mumbai
Plants: Four sites in the states of Maharashtra and Karnataka
Sales: $202 million in 2014
Headcount: About 1,600, 30 in R&D
Businesses (% of sales): sugar (40%); chemicals, including 1,3-butanediol, acetaldehyde, ethyl lactate, and fertilizers (35%); ethanol (17%); power (8%)

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cess to cheap raw materials will be key.

As a major sugar exporter, India is advantaged, Hickingbottom says. But the country's output varies from year to year, she notes. In poor harvest years, companies that maintain close relations with local sugarcane growers will likely be in a better position to secure raw materials.

In that context, it's possible that Godavari's philanthropic bent may help the company businesswise, even if that wasn't the point. Paul S. Zorner, an American member of Godavari's board who has worked at and advised dozens of biobased fuel and chemical companies, notes that the firm helps fund the studies of thousands of young people in the communities where it operates. Godavari also loans money, when the need arises, to the 20,000 or so farming families that supply it with sugarcane.

According to Somaiya, several family foundations that he chairs pay for the education of 35,000 students in communities where Godavari operates. They also fund a 500-bed hospital and a rural health center.

Zorner first met Somaiya at a conference on sugar in South Africa. He has now been on Godavari's board for seven years because the two men share similar ideas about how to extract value from sugar.

The company's manufacturing operations are highly efficient, Zorner claims. "Godavari's plants have a very good scale and are well engineered both chemically and mechanically," he says. "The only thing that is wasted is CO_2, really." Godavari was able to achieve this efficiency thanks to India's abundance of engineering talent, he adds.

IN FACT, the company's biobased chemicals are produced so efficiently that they compete pricewise against identical products obtained from petrochemical sources. There was a time when companies expected to receive a premium for renewably sourced chemicals, but according to Zorner, it's a rare case when that happens.

Even without a price premium, at least one investor sees opportunity in Godavari's focus on products from renewable sources. The Mauritius-based private equity fund Mandala Capital last month agreed to inject $15 million in Godavari. The cash will help to support product development and pay for a new specialty chemical plant. Mandala didn't respond to a request for comment for this article, but in an earlier statement, the firm said it endorsed Godavari's strategy of getting more value from sugar.

The academic world also sees value in Godavari's approach. Somaiya teaches a one-month chemical engineering course on biorefining every two years at Cornell University. More broadly, Zorner says, Godavari can serve as an inspiration to the many parts of the world that have strong agricultural sectors but little industry. "It just shows what you can accomplish with the sun, water, and some manpower." ■

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