2016 Top Markets Report Renewable Fuels Country Case Study

India

The Government of India's ambitious E5 blending target set in 2009 has yet to be achieved. India's inadequate molasses supply associated with reoccurring drought place limits on ethanol production. However, the main reasons India has never achieved its fuel blending goals are the lack of sufficient incentives for India's sugar mills offered by the Oil Marketing Companies (OMCs) and barriers to interstate commerce due to its bureaucratic and patchwork regulatory environment. In spite of these challenges, India is still on a trajectory to be the third largest destination for U.S. ethanol in the next two years based on volume. Indian policy currently prohibits the use of ethanol imports as fuel, but does allow imports of undenatured fuel grade ethanol to be used as other industrial chemicals, freeing up more domestic supply for gasoline blending.

Ethanol Rank	Wood Pellet Rank
3	N/A

As U.S. ethanol producers turn to Asia as a developing export market, India has been in the spotlight for its ambitious blending goals. While on the surface the Government of India's support for ethanol has been persistent over the years, India also has struggled to balance the incentives for the producers and the blenders.

U.S. exporters will likely fill the gap between the supply and the demand, and appear to be doing so at least indirectly. However, the complexities of India's market may require a more nuanced approach than the approach for the higher ranked countries in this year's *Top Markets Report* (Canada and China).

Market Overview

India's sugar policy forces most of the country's sugarcane harvest into sugar production. Molasses, a by-product of sugar production, is the only feedstock permitted to produce ethanol for beverage, fuel and other industrial uses. Reoccurring and acute water shortages discourage farmers from expanding plantings. With these factors at play, recent ethanol production and consumption have remained relatively balanced in recent years, although a growing deficit is currently boosting imports. Given apparent limitations on feedstock supply and demographic trends boosting ethanol consumption, India's periodic ethanol trade deficit could become permanent and grow over time.

According to India's National Policy on Biofuels (2009), renewable fuels are encouraged for motor vehicles, targeting a 5 percent blending rate for ethanol. Under the Ethanol Blending Program (EBP), the benefits of ethanol are recognized – including environmental reasons and economic considerations such as cutting the deficit or reducing India's dependence on imported crude oil. Many structural

This case study is part of a larger Top Markets Report. For additional content, please visit www.trade.gov/topmarkets.
U.S. Department of Commerce | International Trade Administration | Industry & Analysis

limitations have prevented the EBP from reaching its 5 percent goal in the past. Yet the Government of India has repeatedly stated that it would like this rate to be increased to 10 percent.

The Government of India made various attempts to overcome these obstacles. In December 2014, a price fixing scheme for fuel ethanol procurement was introduced.[i] However, according to news reports, this backfired for suppliers that have high transportation charges.[ii]

Furthermore, in February 2015, the Government approved the long-awaited export subsidy for raw sugar but with a condition attached—those mills that produce alcohol must offer at least 25 percent of their annual production to OMCs in order to receive the subsidy. This policy also may have unintended consequences for mills that do not make both products.
The United States and Brazil supply most of India's ethanol imports, but recently the United States has emerged as the largest supplier and will likely retain this position as the low-cost producer and supplier of ethanol. U.S. fuel ethanol exports to India were 151 million liters in 2014 and 140 million liters in 2015.[iii] Furthermore, year-to-date exports as of August 2016 have already exceeded the 2015 total by about 60 million liters. The uptake has been attributed to a widening shortfall of industrial ethanol, as domestic production is diverted to gasoline blending.[iv] There has been some speculation that, due to the shifting of imports to industrial ethanol, blending rates could potentially hit the government-mandated level of 5 percent in 2016.[v] Assuming that is the case, India continues to be ranked in the *Top Markets Report* because blend rates and insufficient domestic supply are indirectly driving the demand for U.S. fuel ethanol.

Challenges and Barriers

Under the EBP, the state-owned OMCs are subject to this requirement and domestically produced ethanol takes priority over foreign-produced ethanol. Thus it was unexpected development when U.S. fuel ethanol began to be exported to India in increasingly large volumes starting in 2013.

Currently, to use imported ethanol as fuel, government-owned OMCs must float an expression of interest/global tender and ethanol exporter bids are competitive with domestic prices. With such a cumbersome and time-consuming process, it is unsurprising that Indian importers find it easier to simply repurpose the imported undenatured fuel ethanol. However, the import ban will eventually place growth limits on the domestic market and foreign supplier sales because a significant expansion in domestic production is not expected as long as existing sugar policy is unchanged.

The biggest near term challenge for U.S. companies is exploring business relationships in a complex and fragmented market, despite India's top-down approach to biofuels policies. The extent to which India's ethanol production can be supplemented with imports remains to be seen. In years of surplus sugar production, India should have no problem meeting its goals.[vi] However, other impediments at the state level need to be fully resolved in order to reach the ultimate 10 percent target. These policy mandates appear to be aspirational rather than firm, making it difficult to predict whether U.S. export growth can maintain its momentum.

Transportation is another area that needs improvement. State level procedures that treat inter-state movement of ethanol as "imports and exports" are widely viewed as impediments.[vii] The Government of India's Transportation Minister has pushed for measures to address this.[viii]

Opportunities for U.S. Companies

For now, the ban on fuel ethanol imports has little negative impact on foreign suppliers as long as India continues to divert domestically produced industrial chemical ethanol to the fuel market while permitting imports to backfill the resulting shortfall in the industrial chemicals market. A biofuels policy aimed at maintaining or expanding fuel ethanol blending has the potential to drive the largest expansion in ethanol consumption. Thus it is still worthwhile to encourage India to open its market directly to foreign suppliers of fuel ethanol.

[i] Ibid.

This case study is part of a larger Top Markets Report. For additional content, please visit www.trade.gov/topmarkets.

[ii] FE Bureau. (2015, March 20). Less than a third of ethanol blending target may be met. *Financial Express*. Retrieved from http://www.financialexpress.com/article/markets/commodities/less-than-a-third-of-ethanol-blending-target-may-be-met/55503/ .
[iii] U.S. Census data for HS codes 2207200010 and 2207106010
[iv] Zheng, Wei. (2016, July 15). Is India the next big thing in the Asian ethanol market?" *Platts Blog*.
[v] Jha, Dilip Kumar. (2016, April 20). After 3 years of trying, India to achieve 5% ethanol blending. *Business Standard*.
[vi] USDA Foreign Agricultural Service. (2016, June 24). *India Biofuels Annual Report 2016*. Retrieved from http://gain.fas.usda.gov/Recent%20GAIN%20Publications/Biofuels%20Annual_New%20Delhi_India_6-24-2016.pdf
[vii] Ibid.
[viii]Dashl, Dipak K. (2015, January 31). Govt keen on resolving state-wise ethanol duty variation. *Times of India*. Retrieved from http://timesofindia.indiatimes.com/india/Govt-keen-on-resolving-state-wise-ethanol-duty-variation/articleshow/46073887.cms.