

How Brazil's Northeast Fits into Plan of Fueling World with Ethanol

Contributed by Marco Bahé
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Brazil's plans of introducing ethanol into the global market are bold. And very bold, at that. The aim is to replace 10% of all gasoline consumed on the planet within a 20-year period. A survey conducted by the State University of Campinas (Unicamp) shows that a US\$ 20 billion investment in production and logistics is required in order to ensure Brazil's lead in the process.

And two actors will play major roles in the plot: the northeastern Brazilian region, and state-owned oil company Petrobras.

According to the survey by Unicamp, this billion-dollar investment would be split in half between the private sector and the government - counting on the participation of the Brazilian Development Bank (BNDES) and of Transpetro, the logistics arm of Petrobras.

Brazilian ethanol exports would be catapulted from the current 2.8 billion liters to 200 billion liters, by 2025. The area planted with sugar cane destined for alcohol fuel would need to be increased from 5.6 million up to 30 million hectares. This is where the Northeast comes into play.

The Southeast region will not be able to contribute much to that expansion. "The survey does not include (the southeastern state of) São Paulo, because the state already has a high density of plants," says professor Rogério Cerqueira Leite, who coordinated the Unicamp survey, commissioned by the Brazilian Ministry of Science and Technology.

In addition to the fact mentioned by the researcher, there is also pressure from developed countries for cane planting area not to invade areas of the Amazon forest. An international certificate is required to prove that ethanol production in Brazil does not harm the environment.

The Northeast has been in a disadvantageous position compared with the Southeast in sugarcane productivity, mostly due to the fact that the sugar and alcohol activity is concentrated along the region's coastline, where the uneven topography renders mechanization impossible.

The solution will be to take the production to the interior of the state. The main project along these lines has already been agreed upon by Petrobras and Japanese company Itochu - the leading distributor of fuel in the Japanese market. It is Canal do Sertão ("Dryland Canal"), a 150,000 hectare irrigation work (70% located in the state of Pernambuco, and the remainder in Bahia). The investment is US\$ 2 billion.

The president of the Sugar and Alcohol Industry Union in the State of Pernambuco (Sindaçúcar-PE), Renato Cunha, claims that the sector is eager for the project to come to fruition. "But investments are still on demand in logistics and workforce training for the sector, including electrical engineers and other professionals," says Cunha.

According to Plínio Nastari, president of the country's leading ethanol consultancy company, Datagro, the Dryland Canal will also mean the independence of sugar cane producers, whose crops used to depend on the region's climate.

"With this irrigation project, cane production in northeastern Brazil will no longer depend so much on the climate in the region, constantly plagued by long periods of drought. Furthermore, the project encourages alcohol production in the São Francisco River Valley." According to estimates, with irrigation, the region might reach an output of an additional 20 million tons of cane per year.

But other initiatives are already starting to be implemented. Grupo Farias should be the first Brazilian company to export ethanol through Ethyl Tert-Butyl Ether (ETBE). According to Eduardo Farias, president of the group, the company will export around 300 million liters of ethanol per year to Japan.

"Provided that we have the necessary support from the government, we will surely be able to bring an ETBE refinery to the state of Pernambuco," he claimed.

Grupo Farias should also soon establish a partnership with the Chinese state-owned company BBKA Biochemicals, based in the province of Anhui, to establish two new alcohol plants in Brazil. The two plants should be built in the state of Maranhão (NE) and become operational in 2009 or 2010.

The initial production should be 800 million liters of ethanol per crop, with potential to reach 1 billion liters per crop. A total of US\$ 200 million will be invested, and each operation will have a processing capacity for five million tons of sugarcane, at a production of 400 to 500 million liters of ethanol per crop.

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