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# 'Remove hindrance for biodiesel's growth'

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biodiesel

On April 22 this year, the ministry of petroleum and natural gas issued a circular requesting the state governments to ensure that unauthorised sale and possession of biodiesel in the market is controlled. Rattled by the circular which created a kind of a roadblock towards the reduction of vehicle pollution from emissions, the Kolkata-based FMCG major Emami Group moved the city civil court in Kolkata against the petroleum ministry's circular; and after battling for nearly seven months, the company got an injunction on the circular in mid-November. The injunction will temporarily remove obstacles to the sale of biodiesel by producers. The company also plans to approach ministry of petroleum, ministry of renewable energy and the ministry of environment for reversal of the ban.

Meanwhile, the injunction by the court will allow the company to start selling biodiesel. With this, the company will restart selling fuel to Calcutta Tramsways Company (CTC). Kolkata Police have tried and approved biodiesel produced by Emami Biotech. Further, the company is also bidding tenders with the Indian Railways.

The total biodiesel production capacity in India is 3,000 tonnes per day (approx.) and, all are sitting on idle capacity as it is difficult to retail them. The problem lies with the awareness and support from the vehicle makers.

Director of Emami group of companies, Aditya V Agarwal, says, " Future of biodiesel/ biofuel in other parts of the world is good, but in India, it depends on the political scenario. And presently, biodiesel is not the top priority of our political minds."

Emami Biotech, which bagged the 'Emerging Company of the Year 2009' award from GlobeOil this year, was set-up three years ago. Emami Biotech, part of the Rs 2,000 crore Emami Group, has a state-of-the-art 300 tonnes per day multi-feed stock biodiesel plant at Haldia, West Bengal in technical collaboration with Desmat Ballestra of Italy.

Emami has invested Rs 150 crore on the biodiesel plant. The biodiesel produced at the Haldia plant conforms to stringent European Union Standard norms, the benchmark standards set by Bureau of Indian Standards and those of the American society for Testing and Materials. The biodiesel produced by Emami Biotech is also certified by SGS, Singapore.

However, the journey was not as easy as it seemed. Speaking over the phone from Kolkata, Agarwal says, "Even though we

went ahead and gave orders for equipments and construction of the plant, we were also liasioning with the government to get a good policy for biodiesel, and a conducive and right environment to sell biodiesel. However, we could feel that it would not come so easy and so soon. Still we went ahead with investing another Rs 100 to 125 crore for added facilities for producing 1,500 tonnes per day of edible oil-mainly from palm and soya."
Asked why the Italian technology is used, Agarwal says, "These technologies are world renowned, and our technical team was comfortable in using the technologies which gave the best yield." And the source for biodiesel are bioproducts of edible oil, used cooking oil, and it just needs to be plant derivative.

## Ethiopian Operation

The commercial plantation work of biofuel crops (jatropha) and other edible and non-eidble oil seeds have already started on 1,500 acres of land in Ethopia. With an investment of Rs 400 crore in Ethiopia, Emami Biotech has taken up plantation project in the State of Oromia in Ethiopia. For this, 1,000,000 acres of land has been allotted to Emami Biotech by Oromia Investment Commission. Once complete, the project will be able to churn out 100,000 tonnes of crude biofuel/ edible oil per year. And the biofuel will be exported to India for producing biodiesel, and the edible oil produced in Ethiopia will be used for captive consumption.
"The benefit will be that we will be able to supply biodiesel to the world in a better way," says Aditya V Agarwal, director, Emami group of companies. He foresees that once the project is complete, there will be a huge business synergy between Emami Biotech's Indian and Ethopian operations. According to Agarwal, the Ethopian project has a huge prospect for the global export market.

## Technologies to watch: Next generation biofuels

1. Cellulosic ethanol
2. Biohydrogen
3. Bio-DME (Dimethyl Ether)
4. Biomethanol
5. DMF (2,5-Dimethylfuran)
6. Hydro Thermal Upgrading (HTU) diesel
7. Fischer-Tropsch (FT) diesel
8. Mixed alcohols
9. Wood diesel
10. Biodiesel from non-food crops such as Jatropha
11. Biofuels from switchgrass
12. Biofuels from micro-algae

*Source: wikipedia*

In Gujarat, the company has signed a MoU with the Gujarat government for setting up an edible oil refinery. Talks are also being held to set-up similar projects either in Andhra Pradesh and Tamil Nadu. With increasing economic activity, climate change will continue to haunt human civilization. For Emami Biotech, the challenge is to protect the planet from the perils of growth.

Globally, biofuels have become important as global hydrocarbon reserves deplete fast. A new report said the world isburning hydrocarbons much faster than previously thought. The report also said global petroleum reserves including natural gas will last for less than 30 years. Hydrocarbons are also a known contributors to global warming. These issues make biofuels an ideal choice as they are easily replenished and will last long enough to power our vehicles, factories and economies.
India and China, along with the US are the world's largest buyers of petroleum products. Although the US has enough crude oil in its own land, it still, along with India and China imports 90 percent of its fuel supplies from West Asia, North Africa and Venezuela. These three countries also have massive research and investments in alternative energy sources.

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