

Biofuel - a smart beginning in Gujarat

At a time when there is growing global concern over greenhouse gas emissions and climate change, Gujarat's tryst with biofuel as an alternative to petrol and diesel has proved a promising starter.

It was the first state that started growing ratanjyot (*jatropha curcus*), from which biofuel could be produced. States like Rajasthan, Maharashtra and Madhya Pradesh followed suit.

The state's tryst with biofuel began in 2005, when Dharmendra Parekh, owner of Aaditya Aromedic and amp; Bio-energies Pvt Ltd, signed a memorandum of understanding (MoU) with the state government in a small village of Tarsad in Navsari district.

His biofuel unit, which was set up at a cost of Rs.45 million (a little over a million dollars), today produces 1,000 litres of oil per day and sells it at Rs.39 per litre.

Parekh says he started his research back in 1992. It took nearly 12 years of research for Parekh to send his first biofuel oil tanker to the market.

'Currently, 85 BPL (below poverty line) families are cultivating ratanjyot vanaspati in 2,000 hectares in south Gujarat alone,' Parekh told IANS.

He has been using biofuel for his own vehicle that has given him 'excellent results'. Diesel gives 18 km per litre while biofuel gives 21 km per litre with least maintenance of the engine, he said.

Use of biofuel saves foreign exchange needed for oil purchase. Regular diesel comes from a non-renewable source, while biofuel is a renewable energy and the Planning Commission has approved projects to boost biofuel production.

The first ever research in this area was undertaken by the National Bank for Agriculture and Rural Development (NABARD). Top agricultural scientists in the world, including those from the Science and Technology Department of China, have conducted research on this plant.

Biofuel production can also help India increase its leverage in the international alternative fuel market.

Besides ratanjyot, there are other plants in India like pongamia, sal, mahua, kokum, pilu, phulwara, dhupa, neem, mango, kusum, karanja, *jatropha*, tumba, jojoba, simarouba, from which alternative fuel could be produced. All this has a potential of generating 20 million tonnes of biofuel annually.

Wild crops cultivated in wastelands could also form a source of biofuel. According to the last economic survey of the central government, there are about 175 million hectares of wasteland in the country.

It is expected that plantation in four million hectares in phases would employ 127.6 million people. Seed collection itself will provide sustainable employment to eight million people.

The central government is also now pushing biofuel production as part of its strategy to reduce

dependence on fossil fuel. Planning Commission member Kirit S. Parikh has recently recommended the use of ethanol-blended petrol and bio-diesel. However, it is still unclear whether the government would come up with a biofuel policy at the national level.

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