

Biofuel: End or beginning?

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Though biofuel is touted as one of the better and cheaper environment-friendly alternatives for motor vehicles, it has been attracting a rash of negative publicity particularly after corn-derived ethanol produced in the US has driven up corn prices as a result of which tortilla, a must food item in Mexican homes, is becoming unaffordable in Mexican homes. So, the question is will the honeymoon with biofuel be over even before it has begun?

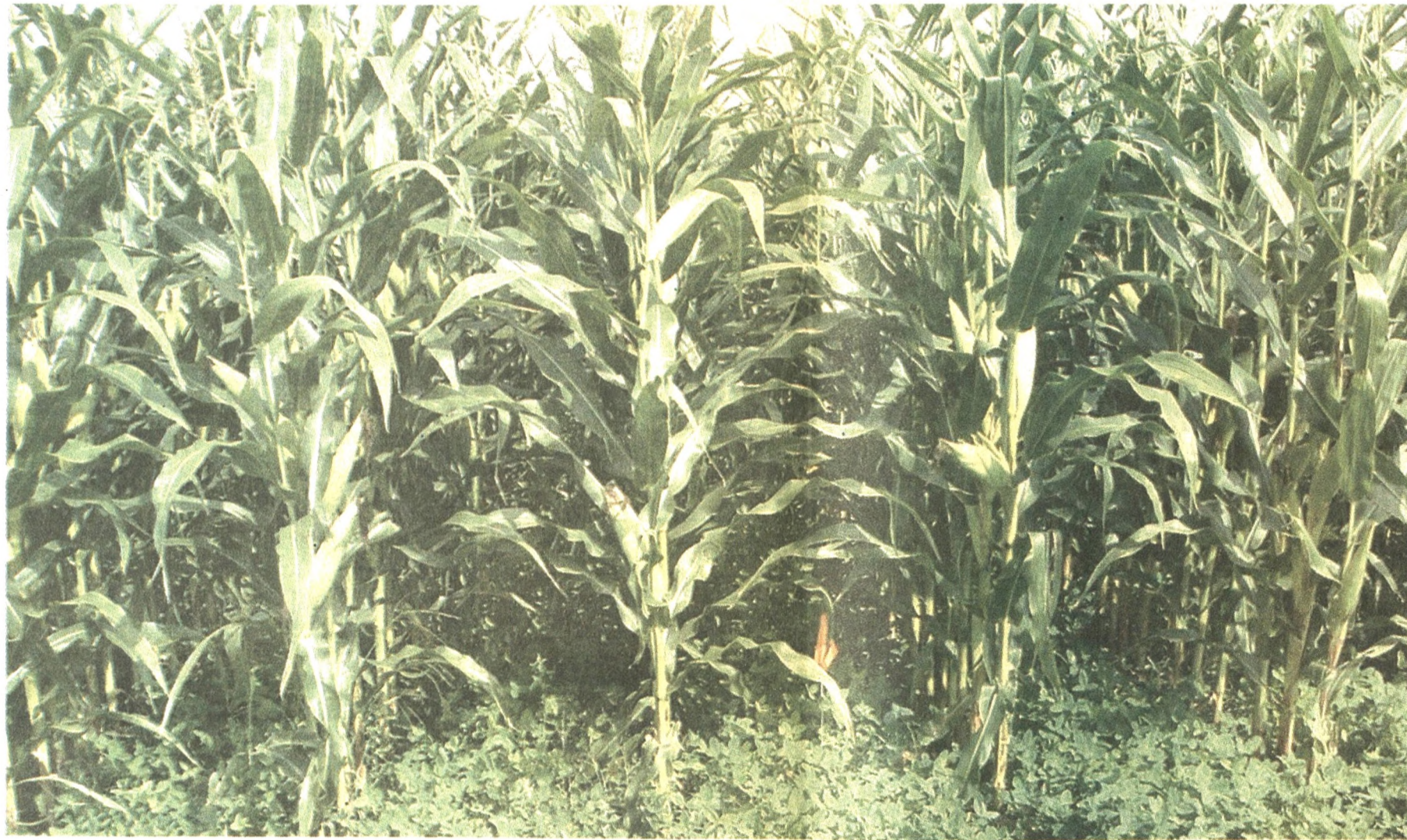
Biofuel has been painted as a villain that will inflict a more serious problem on the hapless planet earth. A report prepared by British members of parliament says that biofuel often increases greenhouse gas emissions and exacerbates the climate change that it is supposed to avoid. Merely increasing the use of biofuels will not mitigate the problem of climate change and the harm it is causing to man and his planet.

It is widely believed that the food crops that go into the production of biofuel will increase food prices manifold, which in turn may lead to worldwide hunger. The message is grim because grain production is already in decline the world over.

Crude oil

The cry against biofuel has not subsided even when \$100 a barrel looks like the base price of crude oil and its climb towards the \$200 a barrel mark in maybe less than a year does not sound like a wild guess. Some analysts say it will hit the \$250 a barrel mark.

It will probably be a matter of debate which of the two is a nearer and more serious threat: pollution or



Agri crops - a source of fuel

the astronomical levels of crude oil. For countries like India the global tirade against biofuel may be especially embarrassing as the campaign for popularising it in the country remains in place despite the gathering storm against it. For instance, it was only in February 2007 that the government of Haryana had signed seven MoUs with independent power producers to set up 21 biomass-based power stations at eight different locations to produce 686 mw of power. The

'raw material' to be used includes rice and wheat husk and also sugarcane straw, all from an area within a radius of 15 to 20 km of the plants.

Jatropha,

Haryana has identified a potential of 1400 mw from biomass. But that is only a fraction of its projected need for 2010, which is 40,000 mw. Meanwhile, officials continue to sing praises of Jatropha, a biofuel crop that is seen as India's answer to the oil crisis caused by rocketing prices and the coun-

try's insatiable hunger for oil, thanks to its galloping economy.

The Government will cut a sorry figure if it renounces the biofuel policy after investing a great deal of money and thought into it. But with questions being raised over the efficacy of biofuel the Government may have to decide if it wants to continue with active biofuel programmes vigorously or put in slow motion. The present position of the government is that it will continue to encourage Jatropha culti-

vation for biofuel production but on degraded land. It may be a signal for a change in the biofuel policy, but it has to be pointed out that it has come without any assessment of Jatropha's adverse impact on the cultivation of biofuel crops.

Climate change

Of course, the embarrassment is not confined to India. The European Union had announced some time ago that by 2020 it wants the fuel for 10 per cent of cars in its member nations to come

from biofuels. The target, which was set with a view to lessening the impact of climate change, has not been given up, as far as one knows. The issue of climate change has been agitating the world seriously for almost two years now when the fear of its serious consequences has forced a change in the earlier lackadaisical approach towards it.

Roughly speaking, anything that burns but made with vegetable matter can be called biofuel. It was initially hailed as one of the best

solutions for dealing with the problem of climate change because biofuel use can, at least so it was believed then, reduce greenhouse gas emissions. Its application in the transport sector was greatly advocated.

Agricultural land

But the 'vegetable matter' needed for producing biofuel is grown on farmlands. Now experts say that 9 per cent of the world agricultural land will be needed to replace just 10 percent of the

fuels used by the transport sector. The figure does not suggest that biofuel is a better source to counter the emission problems arising from the transport sector.

It is further strengthened by a UN study, which says that biofuel will be a more effective alternative if it is used for heating and generating power rather than used in the transport sector.

Technologies

So, there is still some reason to produce and use biofuel. Recently developed technologies enable biofuel to be produced from waste from cash crops and also from hardy plants that grow on poor soils. In a given area it is possible to grow two crops, for food and biofuel. This can even make food cheaper as farm incomes rise from two crops. A lot of hope rests on the second generation of biofuels.

However, it was never claimed that biofuels alone can address the problem of climate change. The issue is about alternatives to fossil fuel, which are many but so far their application has, for various reasons, been limited.

The world is still to exploit the energy potential of wind, thermal, solar and ocean currents.

As the harmful effects of climate change become more and more evident much of the world is committing itself to reduced emissions. Even the hitherto reluctant US is likely to come on board.

Thanks to the relentless upward ride of crude prices, the world has hardly any option other than marching towards 'renewable' and 'alternative' sources of energy. And biofuel does figure in this picture.

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