## Biofuel push

The new policy widens the range of feedstock

he new National Biofuel Policy 2018, aimed at boosting production of environment-friendly biofuels from farm and other waste and reducing dependence on imports for energy security, is fairly pragmatic. The main point of the new policy is that it seeks to widen the range of feedstock for ethanol production from the present sugar-molasses to other waste such as rural and urban garbage and cellulosic and lignocellulosic biomass in line with the waste-to-wealth concept. The permissible feedstock includes sweet sorghum, sugar beet, cassava (tapioca), decaying potatoes, damaged grain such as maize, wheat and rice, and, most importantly, crop residue such as wheat and rice stubble, most of which is now torched in the field, causing pollution.

Significantly, it allows farmers to sell their surplus output to ethanol-making units when prices slump. The only rider here is that they need to seek prior permission from a committee to be set up for this purpose. This provision, though meant to ward off farmers' distress due to excess production and low prices, is open to abuse, especially when prices of crude oil soar, making it economically rewarding to convert farm produce into ethanol for doping with petrol. The overriding objective of the new policy is to develop biofuel production into a vibrant  ${rac{1}{2}}{}$ 1 trillion industry in the next six years.

India generates around 800 million tonnes of farm waste annually. Even if a part of it, say, around 250 million tonnes, is gainfully utilised for energy generation, it can lift ethanol availability from less than 2 billion litres now to between 31 and 47 billion litres. For this, the new policy calls for setting up new-generation biofuel plants capable of producing biofuel from offbeat material such as solid waste and cellulosic feedstock. Creation of a ₹50 billion viability gap fund is mooted to woo public and private investment in this sector. Public sector oil marketing companies are said to be willing to enter into long-term contracts for procuring ethanol from 12 new-generation biofuel plants that are likely to come up in the next few years at a cumulative cost of ₹100 billion. If things go according to plan, it may be possible to raise ethanol blending of vehicular fuel from the current 2.5 per cent to close to 10 per cent.

But the catch here is that the technology for manufacturing biofuel from cellulosic and lignocellulosic biomass and solid litter is still in the evolution stage and needs to be upgraded and refined to make it commercially lucrative. The policy does not lay the required emphasis on this aspect. This aside, there is also the danger of undue exploitation of the liberalised policy by existing sugar-based ethanol units. In situations like the current one, when sugar production is unremunerative due to low prices, the industry may prefer to convert cane juice directly into ethanol without making sugar. Such a move would become an ecological disaster as sugarcane is a cost-intensive crop that consumes a lot of water which the country can ill-afford to grow merely for biofuel production. The policy's implementation would need to be monitored closely to thwart its misuse by diverting utilisable agro-products into biofuels or by using arable land specifically to grow energy crops.

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